DEC 29 1982
Item 768-A-1
djc
L 2.3: 2155

(1)

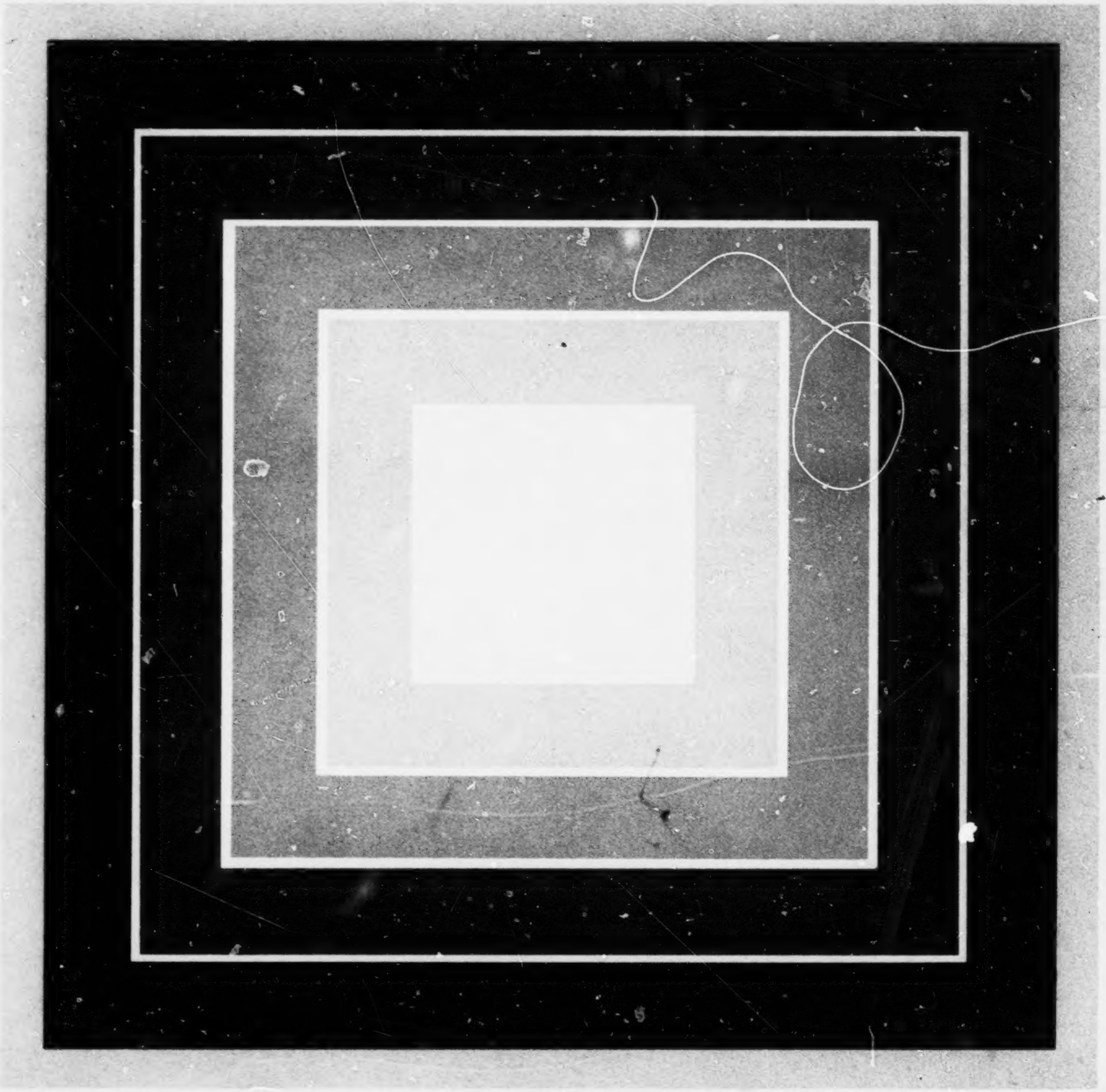
Productivity Measures for Selected Industries, 1954-81

ORIGINAL

U.S. Department of Labor
Bureau of Labor Statistics
December 1982

Bulletin 2155

COMPLETED
253
JT 1/18/83
Rev/prod
OCLC #
8681662



ga

Productivity Measures for Selected Industries, 1954-81

U.S. Department of Labor
Raymond J. Donovan, Secretary

Bureau of Labor Statistics
Janet L. Norwood, Commissioner

December 1982

Bulletin 2155

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price $7.50

BLANK PAGE

Preface

This bulletin updates through 1981 indexes of output per employee hour and output per employee for the industries currently included in the U.S. Government's productivity measurement program. For most industries, indexes are presented in this bulletin beginning with 1954. For many of these industries, however, data can be obtained beginning with 1947 upon request.

Indexes are published for the first time for the following industries: Millwork; office furniture; cosmetics; hand and edge tools; farm and garden machinery; pumps and compressors; and commercial banking. Articles on the millwork and farm and garden machinery industries appeared in the September and October 1982 issues of the *Monthly Labor Review*. Articles on the remaining new measures will appear in forthcoming issues of the *Monthly Labor Review*.

Each index is intended to represent only the change in output per employee hour for the designated industry or combination of industries. These industries are not necessarily a representative cross-section of U.S. industry. They should not be combined, therefore, to obtain an overall measure for the entire U.S. economy or for any sector. However, the Bureau of Labor Statistics does publish indexes of output per hour of all persons and related measures for the private business sector and the nonfarm business, manufacturing, and nonfinancial corporate sectors. These productivity series show the relationship between gross product orginating in these sectors and employment and hours. (The data are presented in the Bureau of Labor Statistics press releases *Productivity and Costs* (quarterly), in the *Monthly Labor Review*, and in *Employment and Earnings*.)

The productivity measures in this bulletin describe the relationship between output in real terms and the labor time involved in its production. They show the changes from year to year in the amount of labor time required to produce a unit of output. Although these measures relate output to employment and employee hours, they do not measure the specific contributions of labor, capital, or any other factor of production. Rather, they reflect the joint effect of a number of interrelated influences, such as changes in technology; capital investment per worker; level of output; utilization of capacity; layout and flow of material; managerial skill; and skills and effort of the work force. Some of the productivity measures use a labor input series based on hours paid and some use a labor input series based on hours at the plant.

Further information concerning the indexes published in this bulletin can be obtained by writing the Division of Industry Productivity Studies, Bureau of Labor Statistics, Washington, D.C. 20212. (Telephone: 202-523-9244.)

This bulletin was prepared in the Bureau's Office of Productivity and Technology by Barbara Bingham, Richard Carnes, Mary Farris, John Ferris, Brian Friedman, Deborah Green, Ed Henneberger, Clyde Huffstutler, John Olsen, Elmer Persigehl, Jack Veigle, Vernette Washington, Patricia Wilder, and James York, under the direction of Horst Brand, John Carey, Arthur Herman, and Charles Ardolini, Chief, Division of Industry Productivity Studies.

Material in this publication is in the public domain and may, with appropriate credit, be reproduced without permission.

BLANK PAGE

Contents

Page

Highlights of trends in output per employee hour 1
  Current developments 1
  Long-term trends 2
  New measures 2

  Chart 1. Growth in output per employee hour in selected industries, 1976-81 3

  Table 1. Selected industries: Employment, 1981, and average annual rates of change in output per employee hour, 1976-81 6

Methods and data sources 8

Charts and tables 10

Other BLS publications on productivity and technology 244

Highlights of Trends in Output Per Employee Hour

Current developments

From 1980 to 1981, output per employee hour increased in nearly two-thirds of the industries for which data are presented in this report. In contrast, from 1979 to 1980, productivity fell in about two-thirds of the industries. The gains in industry productivity in 1981 were consistent with the performance of the nonfarm business sector as a whole, where productivity increased by 1.4 percent.

Among the large manufacturing industries, the steel industry recorded a gain of 9.0 percent in productivity after two consecutive years of productivity declines. Buoyed by strong sales to the oil and gas industry, steel output was up 9.8 percent in 1981, while hours grew by only 0.7 percent.

Another large manufacturing industry, motor vehicles, experienced a 4.7-percent growth in output per employee hour in 1981. This was in sharp contrast to the three previous years, in which productivity fell. Rebounding somewhat from a very poor year in 1980, output in the industry increased by 5.9 percent while employee hours grew by only 1.2 percent.

Among the other large manufacturing industries, the tire and inner tubes industry posted a gain in productivity of 13.3 percent. Output in this industry was up by 8.6 percent, sustained by demand from the replacement market, while hours continued to decline. Aside from demand strength, many old and inefficient tire plants were closed in 1980, which contributed to the sharp productivity gain 1981.

Other large manufacturing industries which recorded increases in productivity in 1981 included: Synthetic fibers (6.3 percent), bakery products (6.2 percent), gray iron foundries (5.9 percent), fluid milk (4.7 percent), fabricated structural metal (4.7 percent), corrugated and solid fiber boxes (2.7 percent), paper, paperboard, and pulp mills (2.0 percent), and electric motors and generators (1.3 percent).

However, three relatively large manufacturing industries posted productivity declines in 1981. In sawmills and planing mills, output per employee hour was down 2.6 percent, while the footwear industry recorded a falloff in productivity of 3.6 percent. The construction machinery and equipment industry also posted a drop in productivity—5.4 percent in 1981.

All the mining industries covered experienced productivity gains in 1981. Coal mining posted its second consecutive large productivity gain, rising 9.2 percent in 1981. Although coal output was down slightly (-1.3 percent) from the previous year, hours continued to decline sharply, resulting in the productivity gain. Productivity advances in the other mining industries were not as great as for coal. Iron mining (usable ore) rose 6.7 percent, copper mining (recoverable metal) increased 5.5 percent, and nonmetallic minerals gained 1.7 percent. Both copper and iron mining had large output increases in 1981, in contrast to sharp declines in 1980. The productivity gain in nonmetallic minerals, on the other hand, was based on a drop in output, due to poor demand from the construction industry, and an even larger decline in hours.

Productivity changes were mixed among transportation and utility industries. Productivity was up 5.4 percent in telephone communications as output grew 5.6 percent. In railroads, productivity rose 5.2 percent. Output in the railroad industry declined for the second straight year, dropping 0.7 percent, while hours continued to fall, declining 5.6 percent. After four consecutive years of declines, productivity in the trucking industry advanced 4.7 percent even though output dropped 4.9 percent; the number of employees was down by 9.2 percent. On the other hand, productivity registered a small decline of 0.3 percent in the air transportation industry. The general economic downturn and the air traffic controllers' strike contributed to the falloff in productivity. Productivity also fell in both gas (-3.8 percent) and electric utilities (-0.7 percent). Output was down in gas utilities as many consumers curtailed usage due to rising prices, while hours were up due to the growing number of customers. Output was up in electric utilities only 0.8 percent, well below the long-term rate of 6.6 percent, while hours grew 1.6 percent, resulting in the productivity falloff. Productivity dropped sharply (-8.3 percent) in petroleum pipelines as output fell for the second consecutive year due to declining demand for petroleum products, while hours increased.

In trade and services, productivity changes also were varied. Productivity grew 1.5 percent in retail food stores, as output was up 1.9 percent and hours grew 0.4 percent. New car dealer productivity was up 1.4 percent. Gasoline service station productivity rose 1.2 percent. Output was down 2.1 percent in this industry, as demand was off due to increased gasoline prices and more fuel efficient cars, while hours fell even more as marginal stations were closed and self-service stations became more prevalent. Productivity in both eating and drinking places and hotels and motels declined 1.9 percent as small gains in output were more than compensated for by larger gains in hours. Productivity in drug stores fell 2.7 percent as output declined 1.9 percent and hours were up slightly. In the laundry and cleaning industry, productivity fell 3.2 percent due to a continued decline in demand for the industry's services resulting in an output drop of 7.2 percent, while hours fell 4.2 percent.

Long-term trends

With one exception, all of the industries in this report recorded average annual increases in productivity over the long term (1947-81 for many of these industries). The metal forming machine tools industry recorded an average annual change in productivity of -0.1 percent over the 1958-81 period. A combination of factors worked against a productivity increase in the machine tools industry, including the tendency of machine tool firms to keep highly skilled workers on the payroll even when output falls during cyclical slowdowns. Additionally, machine tools are not mass produced although they may make mass production processes possible in user industries. The parts and components of a finished machine tool are usually made in relatively small batches and require comparatively large amounts of labor.

On the other hand, the wet corn milling industry posted the highest long-term rate of growth in productivity (7.1 percent per year). Growth in this industry's output and productivity was modest until 1972 when an explosion in output resulted from the rapid market penetration of high fructose and glucose corn syrups. The industry, previously highly capital intensive, became even more so with large infusions of capital.

Although the rates of productivity change varied widely among the industries during the 1976-81 period (see chart 1), three-fourths of the industries recorded lower average annual gains in this more recent period than during the 1947-76 period. This experience matches the productivity record of the nonfarm business economy as a whole. From 1947 to 1976, productivity in this sector grew 2.3 percent per year while from 1976 to 1981 the annual growth rate was only 0.1 percent. The slower growth in productivity among the industries included in this report was associated with less rapid output growth in the later period.

However, there were a few notable exceptions to the falloff in productivity growth during the 1976-81 period. In addition to wet corn milling, the ceramic wall and floor tile industry recorded a substantial improvement in the rate of productivity growth in the last few years—7.4 percent a year. Coupled with changes in material handling procedures, a new technique for firing tile became widespread. These changes resulted in significant labor savings for the industry. The wood office furniture industry posted a 7.0-percent annual growth in productivity, far outstripping its rate of 1.1 percent in the previous period. Productivity was enhanced by substantial output growth in the late seventies as wood furniture captured a large share of the market from metal office furniture.

Among the industries that experienced productivity declines during the 1976-81 period, the brick and structural clay tile industry dropped the most (-5.7 percent per year). Other industries in which productivity declined substantially (more than 2 percent per year) during the period were: Cosmetics and other toiletries (-3.4 percent), laundry and cleaning services (-3.2 percent), hydraulic cement (-2.5 percent), petroleum pipelines (-2.2 percent), and blended and prepared flour (-2.1 percent). (See table 1.)

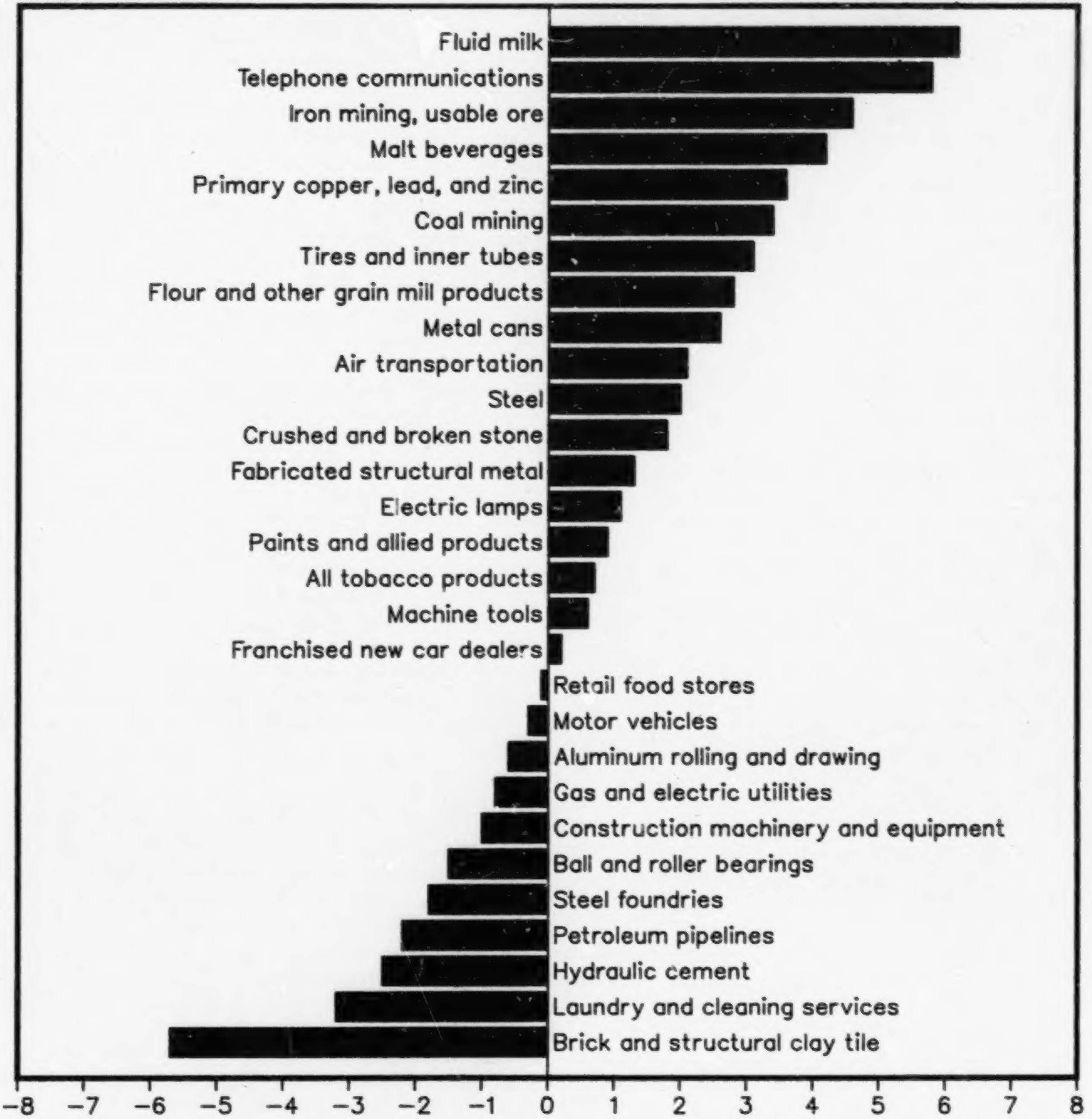
New measures

Millwork SIC 2431. Labor productivity in the millwork industry rose at an average annual rate of 1.4 percent from 1958 to 1980, a modest advance when compared with total manufacturing. Over this period, output in millwork increased at a rate of 2.7 percent annually and employee hours at 1.3 percent. The productivity rise partly reflected low growth in capital investment, particularly over the past decade, and, evidently, slow diffusion of modernized production technologies. These factors, combined with instability in demand for the industry's products, retarded productivity growth.

Approximately three-fourths of the industry's output is used in residential housing, including additions and alterations; small amounts of output are used in commercial and educational buildings, prefabricated wooden buildings, and in trailers and other transportation equipment. Millwork output is thus linked mainly to residential construction where fluctuations have been frequent and substantial.

The basic technology used in millwork plants dates from the 1930's and 1940's; however, advances in production techniques have been numerous. For example, the versatility of machines fabricating moldings has been greatly extended so that a large variety of complex molding profiles can be cut and grooved at great speeds without loss of precision and insignificnt loss in setup time. Significant advances have also been made in adhesive applications. High-speed production requires rapid curing, and the gluing process is therefore usually an integral part of the production process. Certain radio-frequency gluing devices have reduced curing time from 20 to 2 minutes. A modest trend toward automated systems in the industry is underway, furthered

Chart 1. Growth in output per employee hour in selected industries, 1976-81
(Average annual percent change)



by the declining costs of numerical conrols, which more and more entail one-station systems featuring microcomputers. This trend also involves computer-controlled materials handling systems, robotized transfer and palletizing, and carousels interfacing with conveyors, robots, and other material handling devices.

Office furniture (SIC 252). Between 1958 and 1980, output per employee hour in the office furniture industry advanced at an annual rate of 1.8 percent, substantially below the 2.8-percent rate for all manufacturing. The productivity gain in the office furniture industry resulted from growth in output averaging 5.5 percent annually and employee hours averaging 3.6 percent. The growth in productivity in the industry has been comparatively low, in large part because of relatively short production runs engendered by product proliferation.

A number of factors have shaped the demand for office furniture and the industry's output growth. Some of these factors are the growth of the white-collar work force, the amount of available office space, replacement demand, and the introduction of new products. Undoubtedly, the most important factor influencing the long-term output growth has been the increase of the white-collar work force. During the period under study (1958-80), white-collar employment increased from about 27 million to nearly 53 million and currently accounts for slightly more than one-half of the total employed work force.

Productivity growth in the industry has been enhanced by the increased use of more automatic machinery; new materials such as particleboard, quick-setting glues, and improved finishes; better workflow layout; and computerized recordkeeping.

Cosmetics and other toiletries (SIC 2844). Productivity increased at an average annual rate of 4.0 percent from 1958 to 1980—substantially above the 2.8-percent rate for the manufacturing sector. This growth was associated with average annual increases of 7.3 percent in output and 3.1 percent in employee hours. Productivity gains have resulted primarily from a trend toward fewer and larger plants producing a greater level of output, and continued improvements in production and packaging operations.

The changes in output per employee hour have not been steady. Since 1958, annual increases in productivity have ranged from a high of 14.9 percent to a low of 0.4 percent. Declines in productivity occurred in 6 years, the most recent in 1980 when a drop of 11.4 percent was recorded. The decline in 1980 was the largest single-year decline noted.

Productivity should benefit from continued improvements in the production process and in the equipment used. Increased utilization of computer technology may also contribute to productivity gains. Substantial demand for the industry's products is expected to continue.

Hand and edge tools (SIC 3423). As measured by output per employee hour, productivity in the hand and edge tool industry grew at an average annual rate of only 1.3 percent during 1958-80, compared with 2.8 percent for all manufacturing. Output increased at a rate of 3.3 percent and employee hours at a 2.0 percent rate.

Productivity gains have been linked to the continuing mechanization of the production process. The use of robots in material handling operations has been a factor in this regard. Improvements in the ovens used to heat the metal for the forging operation have contributed to faster production rates. The adoption of horizontal impact forging equipment by some plants has resulted in improved production efficiencies. The adoption of cold forming techniques is also aiding productivity. In the cold forming process, dies are still used to give the workpieces their final shape. However, advances in the feeding mechanisms permit preforming of the pieces to such an extent that they can enter the dies without the usual need for heating.

Farm and garden machinery (SIC 352). Productivity in farm and garden machinery manufacturing grew at a rate of 2.6 percent from 1958 to 1980, with output increasing at 4.2 percent per year and hours growing 1.5 percent per year. The rate of productivity gain was about the same as the average for all manufacturing industries over the period measured.

Productivity growth in the farm machinery industry can be divided into three distinct periods. During 1958-65, productivity grew at a rate of 1.7 percent; in 1965-74, it accelerated to a rate of 3.3 percent per year; and in 1974-80, it slowed to 0.2 percent. The higher rate of gain during the 1965-74 period can be associated with a number of years of very high output and productivity growth, fueled by dramatic increases in farm income.

The introduction of new technology including numerical control of machine tools, computer-controlled warehousing facilities, and industrial robots, which have been adopted mainly by the larger firms in the industry, has aided productivity growth. On the other hand, productivity growth has been moderated by the variable nature of demand, which is affected by cyclical changes and changes in farm income. For example, almost every decline in productivity can be associated with a drop in output. In turn, industry output declines tend to be roughly coincident with downturns in the economy.

Pumps and compressors (SIC 3561,3563). Output per employee hour in pump and compressor manufacturing rose at an average annual rate of 2.1 percent between 1958 and 1980—compared with a rate of 2.8 percent for manufacturing as a whole. Output increased 4.7 percent a year, employee hours 2.6 percent.

Pumps and compressors are used throughout manufacturing and in many nonmanufacturing industries, as well as agriculture. Pumps are the second most common machine in use after the electric motor. Compressors generate compressed air, which may be regarded as a form of energy ranking in breadth of use only below electricity, gas, and water. Growth in the output of pumps and compressors was, in general, related to expansion in industrial and public utility demand, gains in residential and associated public works construction, and intensified needs of energy-related extractive and pipeline industries. Foreign trade, too, played an important role in sustaining output: About one fifth of pump and compressor production was exported between 1972 and 1978.

Small lot production is the rule in pump and compressor establishments. Pumps and compressors are often large machines, manufactured to customer specifications. While many of these machines are composed of standard parts, the economies associated with mass production are generally not available. The production process must constantly be adapted so as to cope with the many design, casting, and machining requirements that arise. Such adaptation was facilitated by the advent of numerically controlled machine tools in the sixties, and the introduction of computer-aided design (CAD) into engineering practice. Numerical controls (NC) and CAD have been important sources of productivity advances in the industry.

Commercial banking (SIC 602). Output per employee hour in commercial banking rose at an average annual rate of 1.3 percent between 1967 and 1980—nearly the same as for the nonfarm business sector as a whole (1.4 percent). Output over the period examined rose at a rate of 6.0 percent per year, while employee hours grew 4.6 percent. The rise in banking productivity was associated with strongly expanding customer services and with advances in computer technology and their rapid diffusion throughout the industry. However, the spread of branch banking, while enhancing the convenience of access to banking services, somewhat retarded productivity improvement, partly because scale economies became less favorable.

The sources of the industry's strong output growth were the boom conditions of the early seventies and the financial needs they generated; rapid increases in check transactions; relatively greater reliance by business on external funds; and continuously heavy demand for consumer and real estate credit. Also, commercial banks expanded their share of major types of such credit, as well as of time deposits. Moreover, they emphasized the retailing aspects of their services and consequently accelerated branching. Trust department functions also grew apace as pension and welfare funds proliferated.

The banking industry has been radically transformed by electronic data processing. Although computer developments during the fifties embodied the principle of machine readability, it was the introduction of magnetic ink character recognition (MICR) in 1958 that made the breakthrough of electronic data processing in banking possible. The computer became an indispensable and major factor in improving banking productivity, and the technology has rapidly permeated the industry.

Table 1. Selected industries: Employment, 1981, and average annual rates of change in output per employee hour, 1976–81

SIC code	Industry	Employment, 1981 (thousands)			Output per employee hour: Average annual rate of change, 1976–81 (percent)[1]		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers[2]
	Mining						
1011	Iron mining, crude ore	21	17	4	5.3	5.5	4.5
1011	Iron mining, usable ore	21	17	4	4.6	4.8	3.8
1021	Copper mining, crude ore	36	28	8	0.1	0.1	0.1
1021	Copper mining, recoverable metal	36	28	8	−0.8	−0.8	−0.8
111, 121	Coal mining	222	184	38	3.4	4.0	0.1
121	Bituminous coal and lignite mining	219	181	38	3.4	4.1	0.1
14	Nonmetallic minerals, except fuels	119	91	28	−0.1	0.6	−2.4
142	Crushed and broken stone	37	30	7	1.8	2.0	0.9
	Manufacturing						
2026	Fluid milk	96	(3)	(3)	6.2	(3)	(3)
203	Preserved fruits and vegetables	240	197	43	[4]0.1	[4]0.6	[4]−2.2
2033	Canned fruits and vegetables	91	75	16	[4]−0.2	[4]0.6	[4]−5.5
204	Grain mill products	140	97	43	[4]3.6	[4]3.5	[4]3.8
2041	Flour and other grain mill products	26	16	10	2.8	1.9	5.8
2043	Cereal breakfast foods	17	13	4	[4]2.0	[4]1.2	[4]6.7
2044	Rice milling	5	4	1	[4]4.3	[4]8.5	[4]−4.1
2045	Blended and prepared flour	8	6	2	[4]−2.1	[4]−3.2	[4]1.1
2046	Wet corn milling	13	10	3	[4]10.3	[4]11.4	[4]7.5
2047, 48	Prepared feeds for animals and fowls	71	48	23	[4]3.5	[4]4.0	[4]2.8
205	Bakery products	219	127	92	−0.2	−0.5	0.4
2061, 62, 63	Sugar	32	23	9	2.1	1.5	5.0
2061, 62	Raw and refined cane sugar	20	14	6	[4]3.8	[4]2.9	[4]7.1
2063	Beet sugar	12	9	3	[4]3.0	[4]4.0	[4]−3.9
2065	Candy and confectionery products	56	45	11	(3)	(3)	(3)
2082	Malt beverages	50	32	18	4.2	4.2	4.1
2086	Bottled and canned soft drinks	137	45	92	3.5	5.5	2.4
2111, 21, 31	All tobacco products	58	45	13	0.7	1.5	−3.6
2111, 31	Cigarettes, chewing and smoking tobacco	51	39	12	0.5	1.3	−3.8
2121	Cigars	7	6	1	3.0	2.8	5.5
2251, 52	Hosiery	65	58	7	1.5	2.0	−2.3
2281	Nonwool yarn mills	82	75	7	1.0	1.3	−3.1
2421	Sawmills and planing mills, general	172	152	20	−0.3	0.5	−5.6
2431	Millwork	67	54	13	[4]−1.7	[4]−1.0	[4]−5.0
2435, 36	Veneer and plywood	64	57	7	[4]−0.3	[4]0.4	[4]−5.6
2435	Hardwood veneer and plywood	25	22	3	[4]2.6	[4]2.8	[4]0.5
2436	Softwood veneer and plywood	39	35	4	[4]−1.5	[4]−0.5	[4]−8.4
251	Household furniture	299	250	49	[4]0.1	[4]0.5	[4]−1.9
2511, 17	Wood household furniture	140	122	18	[4]−0.7	[4]−0.2	[4]−4.1
2512	Upholstered household furniture	89	73	16	[4]1.2	[4]1.3	[4]0.8
2514	Metal household furniture	31	25	6	[4]−1.7	[4]−2.0	[4]−0.8
2515	Mattresses and bedsprings	31	24	7	[4]2.7	[4]3.5	[4]0.3
252	Office furniture	54	42	12	[4]4.7	[4]5.3	[4]2.7
2521	Wood office furniture	22	19	3	[4]7.0	[4]9.6	[4]−2.8
2522	Metal office furniture	32	24	8	[4]3.2	[4]2.9	[4]4.3
2611, 21, 31, 61	Paper, paperboard, and pulp mills	267	202	65	2.3	2.5	1.4
2643	Paper and plastic bags	50	39	11	[4]−1.6	[4]−1.4	[4]−2.2
2651	Folding paperboard boxes	43	34	9	−1.6	−1.5	−2.2
2653	Corrugated and solid fiber boxes	103	76	27	2.7	3.1	1.6
2823, 24	Synthetic fibers	102	74	28	6.2	6.1	6.6
2834	Pharmaceutical preparations	158	77	81	[4]2.6	[4]2.1	(3)
2841	Soaps and detergents	44	29	15	[4]2.0	[4]1.6	[4]2.8
2844	Cosmetics and other toiletries	62	41	21	[4]−3.4	[4]−3.8	[4]−2.6
2851	Paints and allied products	63	31	32	0.9	1.8	(5)
2911	Petroleum refining	174	105	69	[4]−0.3	[4]1.3	[4]−3.8
3011	Tires and inner tubes	107	75	32	3.1	3.2	2.7
314	Footwear	143	123	20	−0.6	−0.4	−2.1
3221	Glass containers	68	59	9	3.3	3.5	1.7
3241	Hydraulic cement	30	24	6	−2.5	−2.4	−3.2
325	Structural clay products	41	31	10	−0.6	(5)	−3.2
3251, 53, 59	Clay construction products	30	23	7	−2.2	−1.4	−5.8
3251	Brick and structural clay tile	17	13	4	−5.7	−4.0	−12.4
3253	Ceramic wall and floor tile	9	7	2	[4]7.4	[4]8.6	[4]11.4

Table 1. Selected industries: Employment, 1981, and average annual rates of change in output per employee hour, 1976–81—Continued

SIC code	Industry	Employment, 1981 (thousands)			Output per employee hour: Average annual rate of change, 1976-81 (percent)[1]		
		All employees	Production workers	Non-production workers	All employees	Production workers	Non-production workers[2]
	Manufacturing—Continued						
3255	Clay refractories	11	8	3	4.3	4.6	3.4
3271, 72	Concrete products	85	62	23	[4]–0.9	[4]–0.1	[4]–3.2
3273	Ready-mixed concrete	88	(3)	(3)	[4]–1.2	(3)	(3)
331	Steel	505	391	114	2.0	2.3	1.1
3321	Gray iron foundries	121	98	23	–1.0	(5)	–5.8
3324, 25	Steel foundries	64	49	15	–1.8	–1.6	–2.3
3331, 32, 33	Primary copper, lead, and zinc	22	17	5	3.6	3.9	2.4
3331	Primary copper	14	11	3	5.1	5.4	4.2
3334	Primary aluminum	37	28	9	–0.1	0.6	–2.6
3351	Copper rolling and drawing	29	22	7	1.8	2.3	(5)
3353, 54, 55	Aluminum rolling and drawing	72	52	20	–0.8	–0.1	–2.5
3411	Metal cans	58	50	8	2.6	2.8	1.7
3423	Hand and edge tools	46	35	11	[4]0.7	[4]1.4	[4]–1.8
3441	Fabricated structural metal	101	72	29	1.3	0.9	2.5
352	Farm and garden machinery	156	105	51	[4]–0.7	(4 5)	[4]–2.3
3523	Farm machinery	135	90	45	[4]–1.8	[4]–1.1	[4]–3.1
3524	Lawn and garden equipment	21	15	6	[4]4.0	[4]5.1	[4]1.2
3531	Construction machinery and equipment	143	95	48	–1.0	–0.1	–3.1
3541, 42	Machine tools	104	67	37	0.6	0.7	0.3
3541	Metal cutting machine tools	80	52	28	1.4	1.1	2.0
3542	Metal forming machine tools	24	15	9	–2.0	–0.7	–4.7
3561, 63	Pumps and compressors	94	56	38	[4]0.9	[4]0.9	[4]0.9
3561	Pumps and pumping equipment	62	37	25	[4]1.0	[4]1.0	[4]1.0
3563	Air and gas compressors	32	19	13	[4]0.5	[4]0.5	[4]0.4
3562	Ball and roller bearings	57	44	13	–1.5	–1.8	–0.3
3612	Transformers	54	38	16	[4]5.1	[4]4.5	[4]6.4
3621	Motors and generators	125	96	29	–0.4	0.3	–2.8
3631, 32, 33, 39	Major household appliances	93	74	19	2.4	2.1	3.5
3631	Household cooking equipment	23	18	5	2.8	1.9	5.3
3632	Household refrigerators and freezers	34	27	7	4.3	3.5	8.0
3633	Household laundry equipment	21	17	4	0.2	0.1	0.6
3639	Household appliances, n.e.c.	15	12	3	1.3	1.7	–0.4
3641	Electric lamps	33	29	4	1.1	1.1	1.1
3645, 46, 47, 48	Lighting fixtures	65	49	16	[4]–0.7	(4 5)	[4]–2.9
3651	Radio and television receiving sets	82	57	25	[4]4.4	[4]5.1	[4]2.2
371	Motor vehicles and equipment	784	583	201	–0.3	1.1	–4.4
	Other						
401 class I	Railroad transportation, revenue traffic	457	395	62	3.1	3.4	1.4
401 class I	Railroad transportation, car miles	457	395	62	[4]1.5	[4]1.7	[4]0.6
4111, 413, 414 pts	Bus carriers, class I	36	(3)	(3)	[4 6]2.4	(3)	(3)
4213 part	Intercity trucking	670	(3)	(3)	–0.8	(3)	(3)
4213 part	Intercity trucking (general freight)	413	(3)	(3)	–1.7	(3)	(3)
4511, 4521 part	Air transportation	358	(3)	(3)	[6]2.1	(3)	(3)
4612, 13	Petroleum pipelines	22	15	7	–2.2	–1.0	(3)
4811	Telephone communications	1,076	[7]782	[8]294	5.8	(3)	(3)
491, 92, 93	Gas and electric utilities	777	[7]632	[8]145	–0.8	[7]–0.5	(3)
491, 493 part	Electric utilities	561	(3)	(3)	–0.9	(3)	(3)
492, 493 part	Gas utilities	216	(3)	(3)	–0.5	(3)	(3)
54	Retail food stores[9]	2,429	(3)	(3)	–0.1	(3)	(3)
5511	Franchised new car dealers	706	(3)	(3)	0.2	(3)	(3)
5541	Gasoline service stations[9]	691	(3)	(3)	2.1	(3)	(3)
58	Eating and drinking places[9]	5,097	(3)	(3)	–1.8	(3)	(3)
5912	Drug and proprietary stores[9]	526	(3)	(3)	1.2	(3)	(3)
602	Commercial banking	1,482	(3)	(3)	[4]–0.6	(3)	(3)
7011	Hotels, motels, and tourist courts[9]	1,179	(3)	(3)	–0.6	(3)	(3)
721	Laundry and cleaning services[9]	419	(3)	(3)	–3.2	(3)	(3)

---

[1] Based on the linear least squares trends of the logarithms of the index numbers.

[2] Rates of change for nonproduction worker hours are subject to a wider margin of error than other rates shown.

[3] Not available.

[4] 1976–80.

[5] Less than 0.05 percent.

[6] Output per employee.

[7] Nonsupervisory personnel.

[8] Supervisory personnel and force account construction workers.

[9] Data relate to all persons, including proprietors, partners, and unpaid family workers.

Methods and Data Sources

The *indexes of output per employee hour* are computed by dividing an index of output by an index of aggregate employee hours. Corresponding measures also are computed relating output to the number of employees. Thus, the industry indexes presented measure changes in the relationship between output and employment or employee hours.

The *output indexes* are based primarily on the physical quantity of the products of the industry combined with fixed period weights. Unit employee hour weights are used whenever possible to aggregate the data.

For many industries, however, unit labor weights are not available at the detailed product level so substitute weights must be used. The most common substitute weights are unit values, which are assumed to be proportional to unit employee hours. For many manufacturing industries, however, employee hour weights at the product-class level can be developed from the available data. In such cases, a dual level weighting system is used—unit value weights at the product level and unit labor weights at the product-class level.

Although the weights relate to fixed periods, they are updated periodically, usually in conjunction with economic censuses which are now conducted every 5 years. The most current weights used were derived from the 1977 economic censuses. For three industries—railroads, iron mining, and copper mining—two alternative productivity measures, using different concepts of industry output, are presented.

Periodically, the output indexes for most of the measures are adjusted to levels based on data reported in the economic censuses for mining, manufacturing, and business. The most current adjustments presented in this report reflect data from the 1977 economic censuses.

Employment and employee hour indexes are developed primarily from basic data compiled by the Bureau of Labor Statistics (BLS) and the Bureau of the Census. In concept, indexes based on employee hour data from the Bureau of the Census relate to plant hours only. Employee hour data from BLS include not only hours at work but also payroll hours such as vacations, holidays, and sick leave paid by the establishment directly to the employee.[1] In general, because of increases in paid leave during the period, output per employee hour worked would tend to show a somewhat higher rate of gain than output per employee hour paid. However, actual differences may result from statistical limitations in the data as well as from differences in concepts. Industries for which BLS data are used for the measures of employment and hours have been revised to reflect adjustments to new universe levels.

This report includes indexes of output per employee hour and output per employee. In most cases, the indexes are shown for all employees, production workers, and nonproduction workers.[2] Although both the BLS and Bureau of the Census provide data on production worker hours, neither source provides annual data by industry on nonproduction worker or all-employee hours. Therefore, the nonproduction worker hours are estimated.

The estimates of aggregate nonproduction worker hours for the manufacturing industries are derived from published employment data and from estimates of average annual hours paid or worked per nonproduction worker. Prior to 1968, the estimates of average annual hours paid were calculated by multiplying the number of workweeks in the year by the scheduled weekly hours. Estimated hours for vacations, holidays, disability, and personal time off were subtracted from average annual hours paid to obtain an estimate of average annual hours worked. Vacation and holiday trends were based on studies by the U.S. Department of Health, Education, and Welfare, and on data from BLS surveys. Personal time off was estimated as a constant on the basis of data obtained from various sources. From 1968 to 1977 the estimates of average annual hours paid and average annual hours worked have been based on data collected in the BLS survey, *Employee Compensation in the Private Nonfarm Economy*. Because this survey has been discontinued, the estimates of hours paid and hours worked for later years have been based on the data collected for 1977. These estimates will be revised as other data become available.

For six trade and service industries—retail food stores; gasoline service stations; eating and drinking places; drug stores and proprietary stores; hotels, motels, and tourist courts; and laundry and cleaning services—measures of the hours of partners, proprietors, and supervisory workers were developed. Except for hotels, motels, and tourist courts, estimates were also made for the hours of unpaid family workers. Average weekly hours worked for partners, proprietors, and unpaid family workers were obtained from unpublished data collected in the Current Population Survey. Average weekly hours worked by supervisory employees were obtained from the 1960 and 1970 censuses of population. Estimates for intercensal years were derived using extrapolation and linear interpolation techniques.

---

[1] Indexes for the railroad transportation industry are based on data from the Interstate Commerce Commission and are related primarily to hours at work.

[2] The term "production workers" covers manufacturing and mining employees who work at the plant or mine and who are generally in nonsupervisory occupations. The remaining employees, such as professional, technical, clerical, supervisory, etc., are identified as "nonproduction workers."

All employee hour estimates for the manufacturing industries are derived by summing the aggregate hours for production workers and the estimated hours for nonproduction workers. Hours of all persons are derived by summing the aggregate hours for paid employees, partners, proprietors, and unpaid family workers.

Manufacturing and mining indexes involving nonproduction worker hours are subject to a wider margin of error than are the indexes involving only production worker hours because it is necessary to estimate the average hours of nonproduction workers. In general, any error in these estimates would have a relatively insignificant effect on the trend in the hours for all employees.

The output indexes and employee hour components of the industry productivity indexes are based on data from a number of different sources which are identified in the accompanying tables. For most of the industries, the 1981 output indexes are based on the data sources that are regularly used. However, for some industries, the normal data sources are not yet available, and other information, such as the Federal Reserve Board output indexes, the *Current Industrial Reports* of the Bureau of the Census, and trade association data, were used. For those industries for which the Bureau of the Census is the primary source of employment and employee hours, the 1981 indexes were developed by linking employment and employee hour data from BLS, since 1981 census data are not yet available. Therefore, all 1981 output per employee hour measures are considered preliminary and are subject to revision. The indexes refer to the standard reference base 1977=100 and, beginning in 1972, conform to the 1972 Standard Industrial Classification (SIC) definitions.

The average annual rates of change published in this bulletin are based on the linear least squares trends of the logarithms of the index numbers. Average annual rates of change for any time periods shown in this report are available on request from the Bureau of Labor Statistics.

More detailed information on the methods, limitations, and data sources is contained in the *BLS Handbook of Methods*, BLS Bulletin 2134 (1982), chapter 15, and in a number of individual industry reports. Industry reports as well as additional information are available on request from the Bureau of Labor Statistics.

Charts and Tables

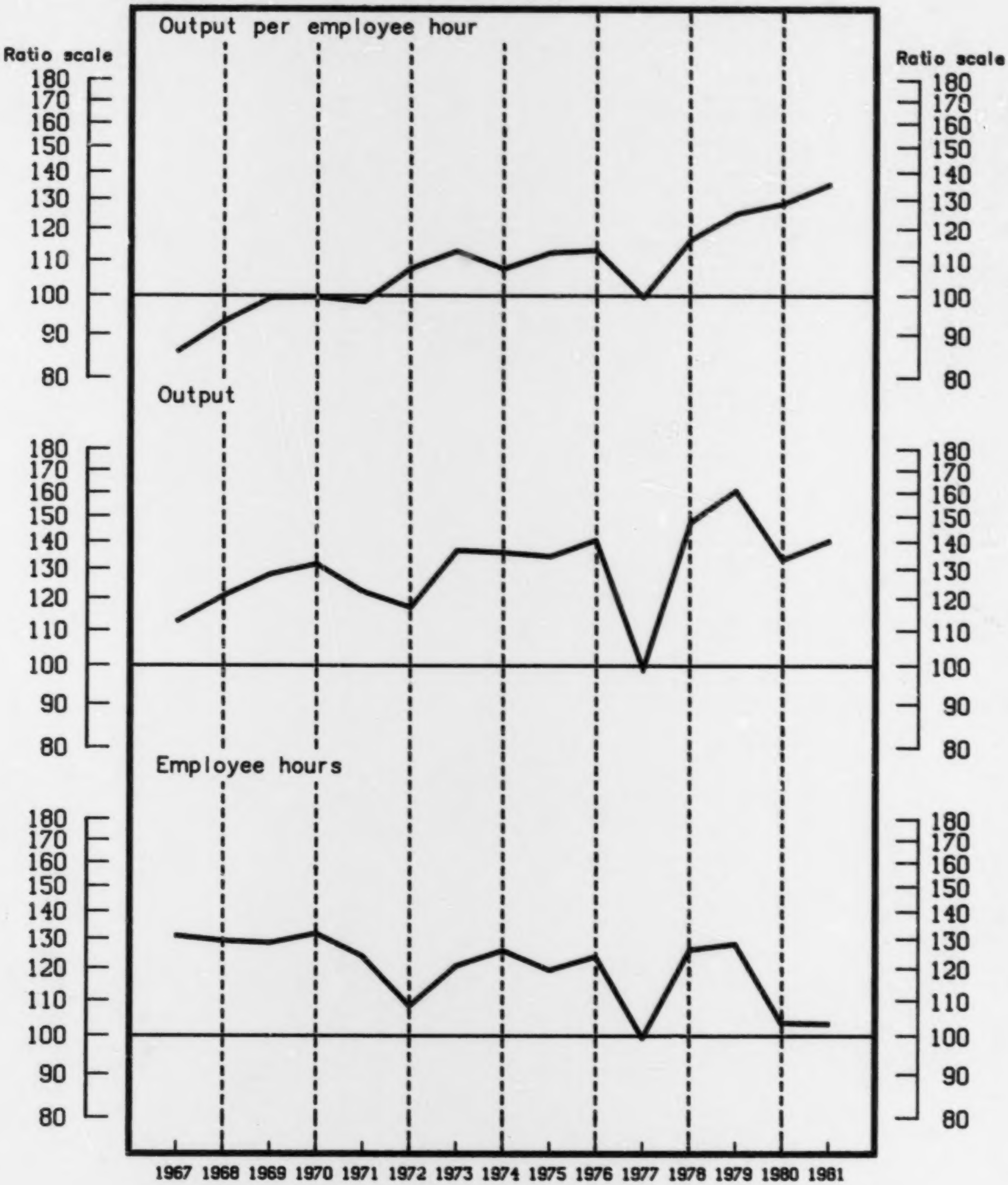
Indexes of output per employee hour and related data

SIC Code	Industry	Chart	*Page*	Table	*Page*
	Mining				
1011	Iron mining, crude ore	2	12	2, 3	13
1011	Iron mining, usable ore	3	14	4, 5	15
1021	Copper mining, crude ore	4	16	6, 7	17
1021	Copper mining, recoverable metal	5	18	8, 9	19
111, 121	Coal mining	6	20	10, 11	21
121	Bituminous coal and lignite mining	7	22	12, 13	23
14	Nonmetallic minerals, except fuels	8	24	14, 15	25
142	Crushed and broken stone	9	26	16, 17	27
	Manufacturing				
2026	Fluid milk	10	28	18	29
203	Preserved fruits and vegetables	11	30	19, 20	31
2033	Canned fruits and vegetables	12	32	21, 22	33
204	Grain mill products	13	34	23, 24	35
2041	Flour and other grain mill products	14	36	25, 26	37
2043	Cereal breakfast foods	15	38	27, 28	39
2044	Rice milling	16	40	29, 30	41
2045	Blended and prepared flour	17	42	31, 32	43
2046	Wet corn milling	18	44	33, 34	45
2047, 48	Prepared feeds for animals and fowls	19	46	35, 36	47
205	Bakery roducts	20	48	37, 38	49
2061, 62, 63	Sugar	21	50	39, 40	51
2061, 62	Raw and refined cane sugar	22	52	41, 42	53
2063	Beet sugar	23	54	43, 44	55
2065	Candy and other confectionery products	24	56	45, 46	57
2082	Malt beverages	25	58	47, 48	59
2086	Bottled and canned soft drinks	26	60	49, 50	61
2111, 21, 31	All tobacco products	27	62	51, 52	63
2111, 2131	Cigarettes, chewing and smoking tobacco	28	64	53, 54	65
2121	Cigars	29	66	55, 56	67
2251, 52	Hosiery	30	68	57, 58	69
2281	Yarn mills, except wool	31	70	59, 60	71
2421	Sawmills and planing mills, general	32	72	61, 62	73
2431	Millwork	33	74	63, 64	75
2435, 2436	Veneer and plywood	34	76	65, 66	77
2435	Hardwood veneer and plywood	35	78	67, 68	79
2436	Softwood veneer and plywood	36	80	69, 70	81
251	Household furniture	37	82	71, 72	83
2511, 2517	Wood household furniture	38	84	73, 74	85
2512	Upholstered household furniture	39	86	75, 76	87
2514	Metal household furniture	40	88	77, 78	89
2515	Mattresses and bedsprings	41	90	79, 80	91
252	Office furniture	42	92	81, 82	93
2521	Wood office furniture	43	94	83, 84	95
2522	Metal office furniture	44	96	85, 86	97
2611, 21, 31, 61	Paper, paperboard, and pulp mills	45	98	87, 88	99
2643	Paper and plastic bags	46	100	89, 90	101
2651	Folding paperboard boxes	47	102	91, 92	103
2653	Corrugated and solid fiber boxes	48	104	93, 94	105
2823, 24	Synthetic fibers	49	106	95, 96	107
2834	Pharmaceutical preparations	50	108	97, 98	109
2841	Soaps and detergents	51	110	99, 100	111
2844	Cosmetics and other toiletries	52	112	101, 102	113
2851	Paints and allied products	53	114	103, 104	115
2911	Petroleum refining	54	116	105, 106	117
3011	Tires and inner tubes	55	118	107, 108	119
314	Footwear	56	120	109, 110	121

Indexes of output per employee hour and related data—Continued

SIC code	Industry	Chart	*Page*	Table	*Page*
	Manufacturing—Continued				
3221	Glass containers	57	122	111, 112	123
3241	Hydraulic cement	58	124	113, 114	125
325	Structural clay products	59	126	115, 116	127
3251, 53, 59	Clay construction products	60	128	117, 118	129
3251	Brick and structural clay tile	61	130	119, 120	131
3253	Ceramic wall and floor tile	62	132	121, 122	133
3255	Clay refractories	63	134	123, 124	135
3271, 72	Concrete products	64	136	125, 126	137
3273	Ready-mixed concrete	65	138	127	139
331	Steel	66	140	128, 129	141
3321	Gray iron foundries	67	142	130, 131	143
3324, 25	Steel foundries	68	144	132, 133	145
3331, 32, 33	Primary copper, lead, and zinc	69	146	134, 135	147
3331	Primary copper	70	148	136, 137	149
3334	Primary aluminum	71	150	138, 139	151
3351	Copper rolling and drawing	72	152	140, 141	153
3353, 54, 55	Aluminum rolling and drawing	73	154	142, 143	155
3411	Metal cans	74	156	144, 145	157
3423	Hand and edge tools	75	158	146, 147	159
3441	Fabricated structural metal	76	160	148, 149	161
352	Farm and garden machinery	77	162	150, 151	163
3523	Farm machinery and equipment	78	164	152, 153	165
3524	Lawn and garden equipment	79	166	154, 155	167
3531	Construction machinery and equipment	80	168	156, 157	169
3541, 42	Machine tools	81	170	158, 159	171
3541	Metal cutting machine tools	82	172	160, 161	173
3542	Metal forming machine tools	83	174	162, 163	175
3561, 63	Pumps and compressors	84	176	164, 165	177
3561	Pumps and pumping equipment	85	178	166, 167	179
3563	Air and gas compressors	86	180	168, 169	181
3562	Ball and roller bearings	87	182	170, 171	183
3612	Transformers	88	184	172, 173	185
3621	Motors and generators	89	186	174, 175	187
3631, 32, 33, 39	Major household appliances	90	188	176, 177	189
3631	Household cooking equipment	91	190	178, 179	191
3632	Household refrigerators and freezers	92	192	180, 181	193
3633	Household laundry equipment	93	194	182, 183	195
3639	Household appliances, n.e.c.	94	196	184, 185	197
3641	Electric lamps	95	198	186, 187	199
3645, 46, 47, 48	Lighting fixtures	96	200	188, 189	201
3651	Radio and television receiving sets	97	202	190, 191	203
371	Motor vehicles and equipment	98	204	192, 193	205
	Other				
401	Railroad transportation, revenue traffic	99	206	194, 195	207
401	Railroad transportation, car miles	100	208	196, 197	209
4111, 4131, 414 pts	Bus carriers, class I	101	210	198	211
4213 part	Intercity trucking	102	212	199	213
4213 part	Intercity trucking, general freight	103	214	200	215
4511, 4521 part	Air transportation	104	216	201	217
4612, 13	Petroleum pipelines	105	218	202, 203	219
4811	Telephone communications	106	220	204	221
491, 492, 493	Gas and electric utilities	107	222	205, 206	223
491, 493 part	Electric utilities	108	224	207	225
492, 493 part	Gas utilities	109	226	208	227
54	Retail food stores	110	228	209	229
5511	Franchised new car dealers	111	230	210	231
5541	Gasoline service stations	112	232	211	233
58	Eating and drinking places	113	234	212	235
5912	Drug and proprietary stores	114	236	213	237
602	Commercial banking	115	238	214	239
7011	Hotels, motels, and tourist courts	116	240	215	241
721	Laundry and cleaning services	117	242	216	243

Chart 2. Iron mining, crude ore (SIC 1011): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 2. Iron mining, crude ore (SIC 1011): Indexes of output per employee hour and ouput per employee, 1954-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(2)	36.2	(2)	37.2	32.8	63.8
1955	52.5	45.5	95.6	49.9	43.9	86.7
1956	53.0	46.1	93.8	50.1	44.1	85.5
1957	52.7	45.4	98.2	49.0	43.0	87.1
1958	48.3	43.0	75.6	41.5	37.3	64.3
1959	49.4	44.8	70.3	44.6	40.6	64.0
1960	59.4	51.5	109.4	56.3	49.4	99.0
1961	67.1	60.2	100.8	61.5	56.1	87.5
1962	73.1	65.2	113.3	69.2	62.8	101.0
1963	83.3	72.9	141.9	77.3	69.0	122.6
1964	89.6	77.8	160.3	85.5	75.7	142.3
1965	85.3	74.4	147.9	82.8	73.7	133.9
1966	84.4	74.3	139.1	84.0	75.8	126.5
1967	86.1	76.2	137.9	85.3	77.5	123.6
1968	93.5	84.3	137.5	92.6	85.1	126.6
1969	99.7	90.5	141.2	97.4	90.6	126.0
1970	99.9	90.2	146.4	98.1	91.4	126.7
1971	98.6	89.4	139.6	93.9	87.6	120.1
1972	108.0	96.2	153.4	103.2	96.9	128.4
1973	113.2	103.1	159.2	112.2	104.3	146.6
1974	107.9	98.1	152.2	110.6	102.1	149.1
1975	112.7	102.4	158.5	110.8	103.7	140.9
1976	113.5	103.5	157.2	111.3	104.0	141.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	116.6	107.2	158.3	118.0	110.3	151.2
1979	125.5	115.4	168.2	125.7	118.5	154.8
1980	129.0	123.6	147.5	119.7	117.0	126.4
1981 [3]	138.3	130.5	167.6	130.5	126.0	146.4
Average annual percent change:						
1947-81	(2)	4.2	(2)	4.0	4.4	1.7
1976-81	5.3	5.5	4.5	4.1	4.4	2.8

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Data not available.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 3. Iron mining, crude ore (SIC 1011): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	67.9	(1)	187.6	(1)	182.4	207.0	106.4
1955	88.5	168.5	194.5	92.6	177.2	201.5	102.1
1956	91.0	171.6	197.2	97.0	181.8	206.3	106.4
1957	100.1	190.1	220.5	101.9	204.1	233.0	114.9
1958	68.4	141.7	159.1	90.5	164.7	183.6	106.4
1959	64.0	129.6	142.7	91.1	143.5	157.7	100.0
1960	96.9	163.1	168.3	89.4	172.0	196.1	97.9
1961	85.7	127.7	142.4	85.0	139.4	152.8	97.9
1962	90.3	123.5	138.6	79.7	130.5	143.9	89.4
1963	96.5	115.9	132.3	68.0	124.8	139.9	78.7
1964	109.0	121.6	140.1	68.0	127.5	143.9	76.6
1965	111.1	130.2	149.3	75.1	134.2	150.8	83.0
1966	113.1	134.0	152.2	81.3	134.7	149.3	89.4
1967	113.1	131.4	148.4	82.0	132.6	146.0	91.5
1968	121.3	129.7	143.9	88.2	131.0	142.6	95.8
1969	128.6	129.0	142.1	91.1	132.1	141.9	102.1
1970	132.2	132.3	146.6	90.3	134.7	144.7	104.3
1971	122.6	124.4	137.1	87.8	130.5	139.9	102.1
1972	117.5	108.8	119.7	76.6	113.9	121.3	91.5
1973	137.2	121.2	133.1	86.2	122.3	131.5	93.6
1974	136.4	126.4	139.0	89.6	123.3	133.6	91.5
1975	135.0	119.8	131.3	85.2	121.8	130.2	95.8
1976	141.2	124.4	136.4	89.8	126.9	135.8	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	148.0	126.7	138.1	93.5	125.4	134.2	97.9
1979	161.5	126.7	139.9	96.0	128.5	136.3	104.3
1980	133.9	103.8	108.3	90.8	111.9	114.4	104.3
1981 [2]	143.3	103.6	109.8	85.5	109.8	113.7	97.9
Average annual percent change:							
1947-81	2.2	(1)	-2.0	(1)	-1.7	-2.1	.4
1976-81	3.0	-2.2	-2.4	-1.4	-1.0	-1.3	.2

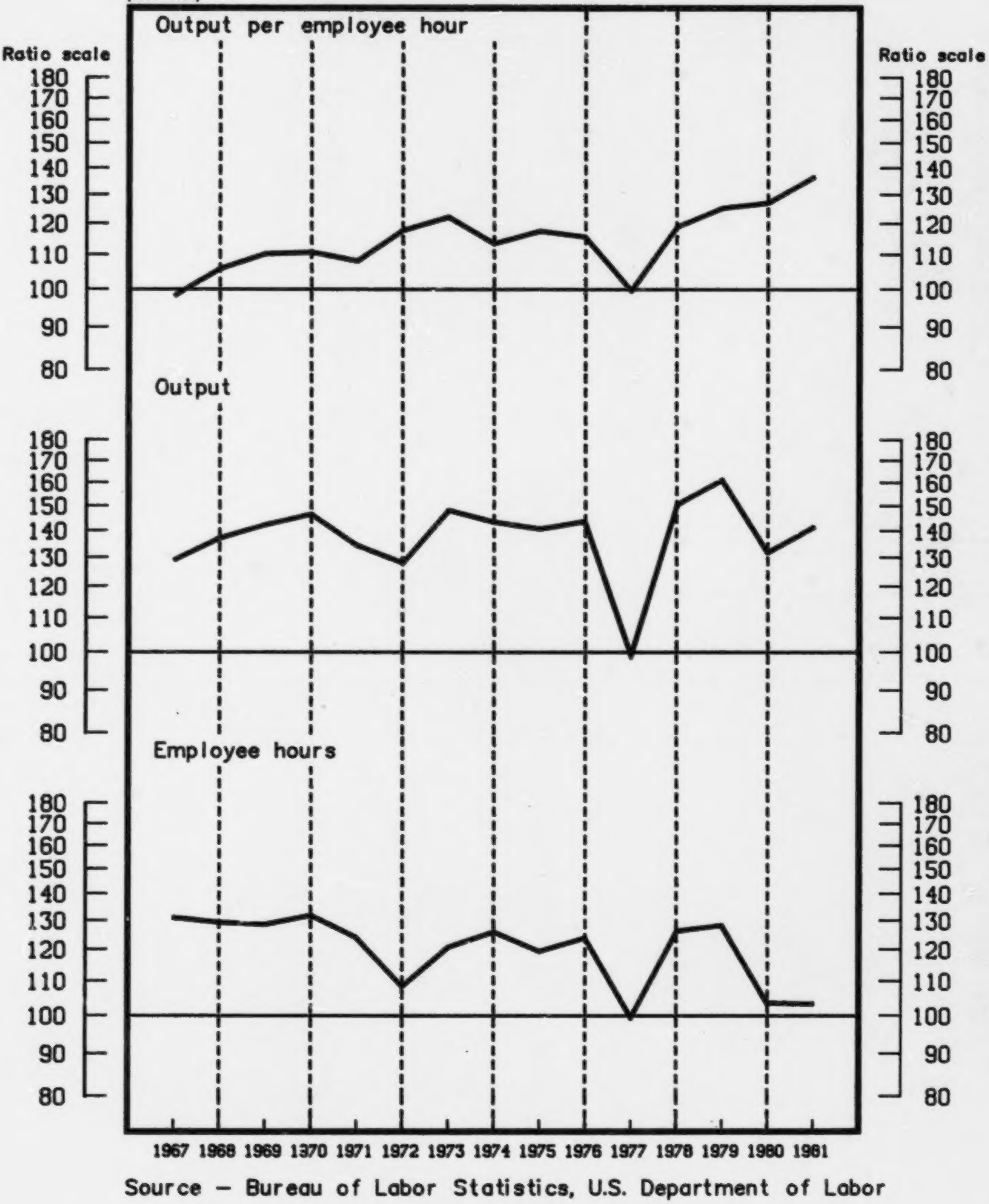
[1] Data not available.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 3. Iron mining, usable ore (SIC 1011): Output per hour and related data, 1967-81
(1977=100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 4. Iron mining, usable ore (SIC 1011): Indexes of output per employee hour and ouput per employee, 1954-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(2)	48.6	(2)	50.2	44.3	86.1
1955	72.0	62.4	131.1	68.5	60.2	118.9
1956	69.3	60.3	122.6	65.4	57.6	111.7
1957	68.7	59.2	128.2	64.0	56.1	113.7
1958	60.3	53.7	94.5	51.9	46.6	80.4
1959	59.3	53.9	84.4	53.6	48.8	76.9
1960	70.1	60.8	128.0	66.5	58.3	116.9
1961	73.2	65.7	110.0	67.1	61.2	95.5
1962	78.1	69.6	121.0	73.9	67.0	107.8
1963	87.8	76.9	149.7	81.6	72.8	129.4
1964	96.6	83.9	172.8	92.2	81.7	153.4
1965	95.3	83.1	165.2	92.5	82.3	149.5
1966	98.4	86.7	162.2	97.9	88.3	147.5
1967	98.6	87.3	157.9	97.7	88.7	141.5
1968	106.1	95.6	156.0	105.0	96.5	143.6
1969	110.6	100.4	156.6	108.0	100.6	139.8
1970	111.1	100.3	162.8	109.1	101.6	140.9
1971	108.4	98.3	153.5	103.3	96.4	132.0
1972	118.1	107.4	167.8	112.8	105.9	140.4
1973	122.6	111.6	172.4	121.5	113.0	158.8
1974	113.8	103.5	160.5	116.6	107.6	157.2
1975	117.8	107.1	165.6	115.8	108.4	147.3
1976	115.9	105.7	160.6	113.6	106.2	144.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	119.2	109.3	161.5	120.4	112.5	154.2
1979	125.6	115.6	168.4	125.8	118.6	155.0
1980	127.5	122.2	145.7	118.2	115.6	126.8
1981 [3]	136.1	128.4	164.9	128.4	124.0	144.0
Average annual percent change:						
1947-81	(2)	3.0	(2)	2.7	3.1	.5
1976-81	4.6	4.8	3.8	3.4	3.7	2.1

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Data not available.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 5. Iron mining, usable ore (SIC 1011): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	91.6	(1)	187.6	(1)	182.4	207.0	106.4
1955	121.4	168.5	194.5	92.6	177.2	201.5	102.1
1956	118.9	171.6	197.2	97.0	181.8	206.3	106.4
1957	130.6	190.1	220.5	101.9	204.1	233.0	114.9
1958	85.5	141.7	159.1	90.5	164.7	183.6	106.4
1959	76.9	129.6	142.7	91.1	143.5	157.7	100.0
1960	114.4	163.1	188.3	89.4	172.0	196.1	97.9
1961	93.5	127.7	142.4	85.0	139.4	152.8	97.9
1962	96.4	123.5	138.6	79.7	130.5	143.9	89.4
1963	101.8	115.9	132.3	68.0	124.8	139.9	78.7
1964	117.5	121.6	140.1	68.0	127.5	143.9	76.6
1965	124.1	130.2	149.3	75.1	134.2	150.8	83.0
1966	131.9	134.0	152.2	81.3	134.7	149.3	89.4
1967	129.5	131.4	148.4	82.0	132.6	146.0	91.5
1968	137.6	129.7	143.9	88.2	131.0	142.6	95.8
1969	142.7	129.0	142.1	91.1	132.1	141.9	102.1
1970	147.0	122.3	146.6	90.3	134.7	144.7	104.3
1971	134.8	124.4	137.1	87.8	130.5	139.9	102.1
1972	128.5	108.8	119.7	76.6	113.9	121.3	91.5
1973	148.6	121.2	133.1	86.2	122.3	131.5	93.6
1974	143.8	126.4	139.0	89.6	123.3	133.6	91.5
1975	141.1	119.8	131.8	85.2	121.8	130.2	95.8
1976	144.2	124.4	136.4	89.8	126.9	135.8	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	151.0	126.7	138.1	93.5	125.4	134.2	97.9
1979	161.7	128.7	139.9	96.0	128.5	136.3	104.3
1980	132.3	103.8	108.3	90.8	111.9	114.4	104.3
1981 [2]	141.0	103.6	109.8	85.5	109.6	113.7	97.9
Average annual percent change:							
1947-81	1.0	(1)	-2.0	(1)	-1.7	-2.1	.4
1976-81	2.3	-2.2	-2.4	-1.4	-1.0	-1.3	.2

[1] Data not available.

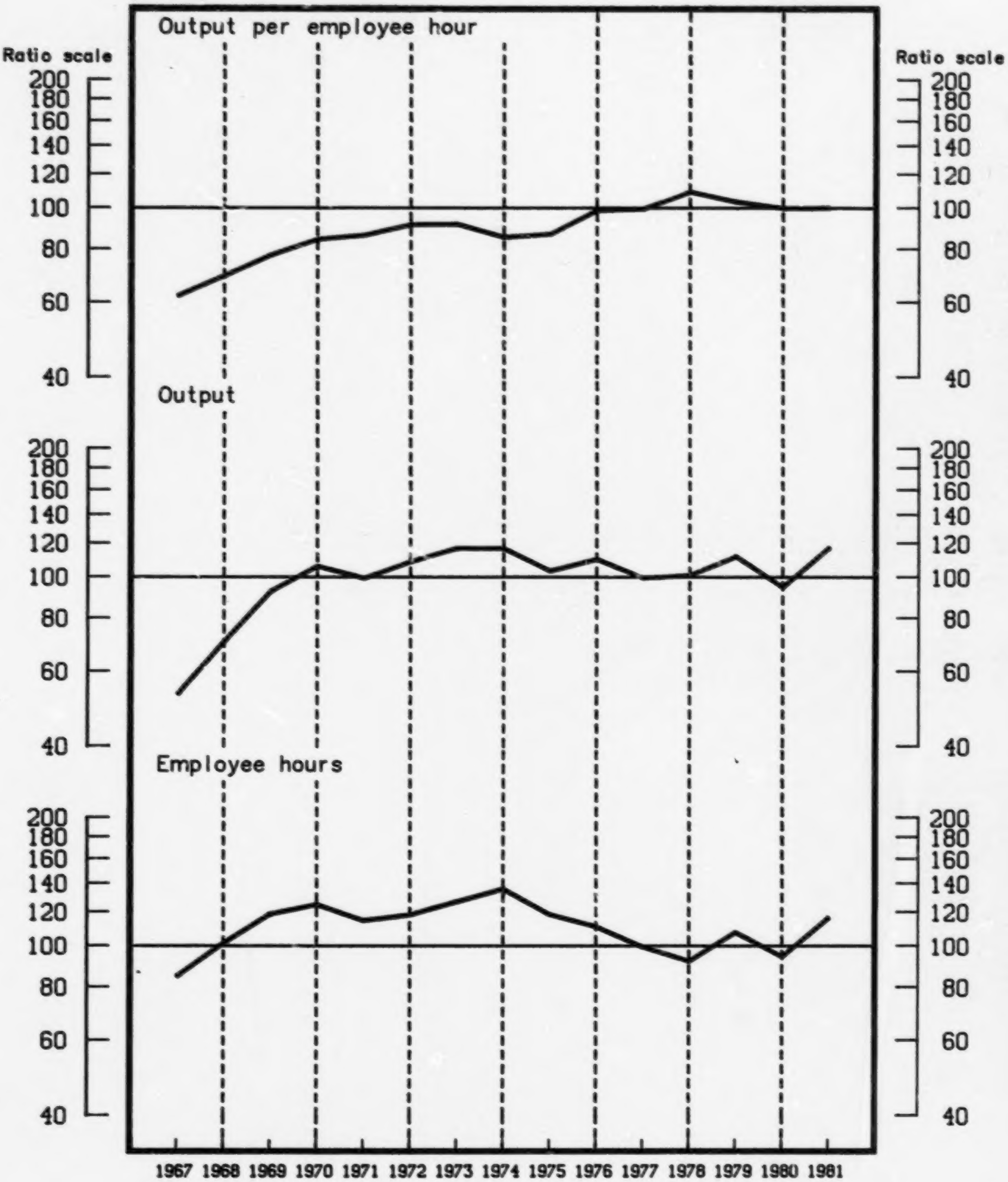
[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

BEST DOCUMENT AVAILABLE

Chart 4. Copper mining, crude ore (SIC 1021): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 6. Copper mining, crude ore (SIC 1021): Indexes of output per employee hour and ouput per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(2)	36.6	(2)	45.9	40.8	78.2
1955	46.1	41.4	72.0	53.3	47.9	83.3
1956	47.6	42.4	78.9	54.2	48.4	87.8
1957	51.4	46.6	76.2	55.0	50.0	81.4
1958	55.6	51.7	73.1	58.7	52.8	74.9
1959	56.3	53.1	63.3	61.3	58.8	70.8
1960	57.2	54.6	67.1	65.9	62.9	77.8
1961	60.4	56.0	80.1	68.1	63.2	90.5
1962	66.1	61.3	88.0	73.2	67.9	97.3
1963	66.2	61.4	88.1	73.7	68.5	97.3
1964	72.3	67.4	93.9	80.0	74.9	103.4
1965	72.3	66.6	96.0	81.0	74.9	109.2
1966	73.7	67.8	101.8	82.4	76.4	109.7
1967	62.5	64.1	57.7	70.5	71.4	67.7
1968	69.6	70.1	68.0	84.9	85.3	83.5
1969	77.9	73.8	94.4	93.0	88.5	111.1
1970	84.8	80.0	104.1	97.6	93.1	115.2
1971	86.6	85.4	90.5	97.8	96.8	101.1
1972	91.8	86.4	114.2	98.1	93.8	114.9
1973	92.0	85.6	120.4	97.7	92.9	117.3
1974	85.7	82.0	99.9	90.2	86.7	103.1
1975	87.2	86.4	89.6	89.5	88.6	92.3
1976	99.2	98.0	103.1	101.3	100.7	102.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.6	109.1	111.1	113.5	113.3	114.2
1979	103.8	102.0	109.9	113.3	112.3	116.7
1980	100.3	99.8	101.9	106.6	106.0	108.8
1981 [3]	100.6	99.8	103.1	109.0	107.6	113.5
Average annual percent change:						
1947-81	(2)	3.9	(2)	3.1	3.6	.7
1976-81	.1	.1	.1	1.6	1.4	2.2

---

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Data not available.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 7. Copper mining, crude ore (SIC 1021): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

Year	Output [1]	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	38.1	(2)	104.2	(2)	83.0	93.4	50.0
1955	45.8	99.3	110.6	83.6	86.0	95.7	55.0
1956	53.7	112.7	126.8	68.1	99.1	111.0	61.3
1957	52.9	103.0	113.5	69.4	96.1	105.9	65.0
1958	46.8	84.1	90.5	64.0	82.5	88.7	62.5
1959	42.5	76.8	80.0	67.1	69.3	72.3	60.0
1960	55.5	97.0	101.6	82.7	84.2	88.3	71.3
1961	58.8	97.4	105.0	73.4	86.3	93.0	65.0
1962	62.1	93.9	101.3	70.6	84.8	91.4	63.8
1963	60.8	91.8	99.0	69.0	82.5	88.7	62.5
1964	64.6	89.4	95.9	66.8	80.7	86.3	62.5
1965	72.3	100.0	108.5	73.0	89.3	96.5	66.2
1966	78.2	106.1	115.4	76.8	94.9	102.4	71.3
1967	53.3	85.3	83.1	92.3	75.6	74.8	78.7
1968	71.0	102.0	101.3	104.4	83.6	83.2	85.0
1969	93.0	119.4	126.0	98.5	100.0	105.1	83.7
1970	106.6	125.7	133.2	102.4	109.2	114.5	92.5
1971	99.8	115.2	116.8	110.3	102.0	103.1	96.7
1972	109.2	118.9	126.4	95.6	111.3	116.4	95.0
1973	117.3	127.5	137.0	97.4	120.0	126.2	100.0
1974	117.2	136.7	142.9	117.3	130.0	135.2	113.7
1975	103.8	119.1	120.2	115.8	116.0	117.2	112.5
1976	110.8	111.5	112.9	107.3	109.2	108.8	107.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	92.5	92.9	91.3	89.3	89.5	88.8
1979	112.3	106.2	110.1	102.2	99.1	100.0	96.2
1980	95.2	94.9	95.4	93.4	89.3	89.8	87.5
1981 [3]	117.7	117.0	117.9	114.2	108.0	109.4	103.7
Average annual percent change:							
1947-81	4.1	(2)	.2	(2)	1.0	.5	3.4
1976-81	.8	.7	.7	.8	-.8	-.7	-1.4

---

[1] Represents output in terms of copper ore sold or treated.

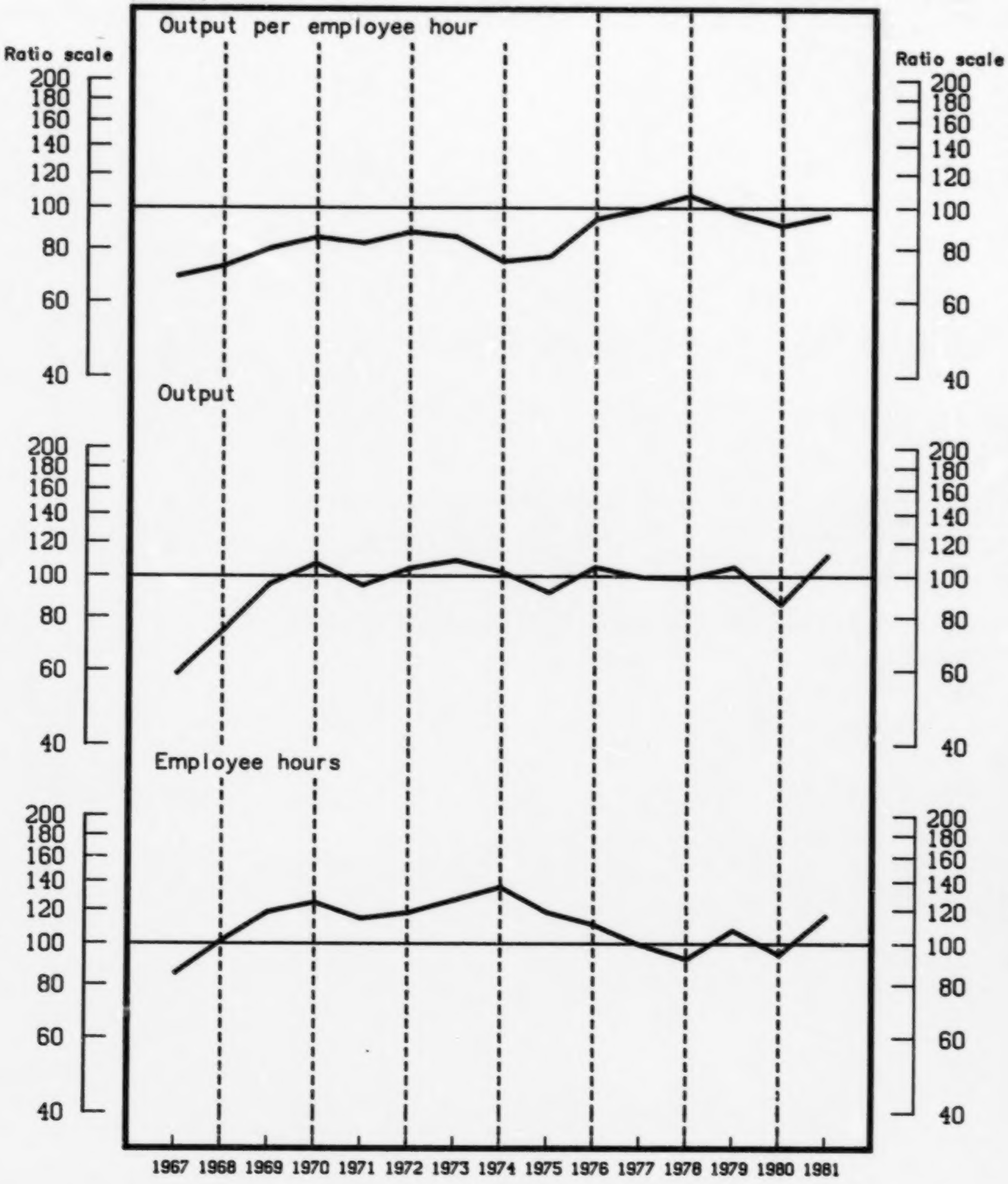
[2] Data not available.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 5. Copper mining, recoverable metal (SIC 1021): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 8. Copper mining, recoverable metal (SIC 1021): Indexes of output per employee hour and ouput per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(2)	48.9	(2)	61.4	54.6	102.0
1955	61.6	55.3	96.2	71.2	63.9	111.3
1956	60.1	53.4	99.4	68.3	61.0	110.4
1957	64.6	58.6	95.8	69.2	62.8	102.3
1958	71.5	66.4	93.9	72.8	67.8	96.2
1959	65.8	63.1	75.3	72.9	69.8	84.2
1960	68.4	65.3	80.2	78.7	75.1	93.0
1961	73.5	68.2	97.5	83.0	77.0	110.2
1962	80.3	74.4	106.8	88.9	82.5	118.2
1963	81.2	75.3	108.0	90.3	84.0	119.2
1964	85.7	79.9	111.3	94.9	88.8	122.6
1965	83.3	76.8	114.1	93.3	86.3	125.8
1966	83.0	76.3	114.7	92.8	86.0	123.6
1967	69.2	71.0	63.9	78.0	79.1	75.0
1968	73.2	73.7	71.6	89.4	89.8	87.9
1969	80.6	76.3	97.7	96.2	91.5	114.9
1970	85.5	80.7	105.0	98.4	93.9	116.2
1971	82.9	81.8	86.6	93.6	92.6	96.8
1972	88.1	82.9	109.6	94.2	90.0	110.3
1973	85.8	79.9	112.3	91.2	86.7	109.4
1974	75.2	71.9	87.6	79.1	76.0	90.4
1975	77.2	76.5	79.4	79.3	78.5	81.8
1976	94.7	93.5	98.4	96.7	96.2	98.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.6	107.1	109.0	111.4	111.2	112.0
1979	97.8	96.1	103.5	106.8	105.8	110.0
1980	91.3	90.8	92.7	97.0	96.4	99.0
1981 [3]	96.3	95.6	98.7	104.4	103.0	108.7
Average annual percent change:						
1947-81	(2)	2.3	(2)	1.5	2.0	-.9
1976-81	-.8	-.8	-.8	.7	.5	1.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Data not available.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 9. Copper mining, recoverable metal (SIC 1021): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

Year	Output [1]	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	51.0	(2)	104.2	(2)	83.0	93.4	50.0
1955	61.2	99.3	110.6	63.6	86.0	95.7	55.0
1956	67.7	112.7	126.8	68.1	99.1	111.0	61.3
1957	66.5	103.0	113.5	69.4	96.1	105.9	65.0
1958	60.1	84.1	90.5	64.0	82.5	88.7	62.5
1959	50.5	76.8	80.0	67.1	69.3	72.3	60.0
1960	66.3	97.0	101.6	82.7	84.2	88.3	71.3
1961	71.6	97.4	105.0	73.4	86.3	93.0	65.0
1962	75.4	93.9	101.3	70.6	84.8	91.4	63.8
1963	74.5	91.8	99.0	69.0	82.5	88.7	62.5
1964	76.6	89.4	95.9	68.8	80.7	86.3	62.5
1965	83.3	100.0	108.5	73.0	89.3	96.5	66.2
1966	88.1	106.1	115.4	76.8	94.9	102.4	71.3
1967	59.0	85.3	83.1	92.3	75.6	74.6	78.7
1968	74.7	102.0	101.3	104.4	83.6	83.2	85.0
1969	96.2	119.4	126.0	98.5	100.0	105.1	83.7
1970	107.5	125.7	133.2	102.4	109.2	114.5	92.5
1971	95.5	115.2	116.8	110.3	102.0	103.1	98.7
1972	104.8	118.9	126.4	95.6	111.3	116.4	95.0
1973	109.4	127.5	137.0	97.4	120.0	126.2	100.0
1974	102.8	136.7	142.9	117.3	130.0	135.2	113.7
1975	92.0	119.1	120.2	115.8	116.0	117.2	112.5
1976	105.6	111.5	112.9	107.3	109.2	109.8	107.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.5	92.5	92.9	91.3	89.3	89.5	88.8
1979	105.8	108.2	110.1	102.2	99.1	100.0	96.2
1980	86.6	94.9	95.4	93.4	89.3	89.8	87.5
1981 [3]	112.7	117.0	117.9	114.2	108.0	109.4	103.7
Average annual percent change:							
1947-81	2.5	(2)	.2	(2)	1.0	.5	3.4
1976-81	-.1	.7	.7	.6	-.8	-.7	-1.4

[1] Represents output in terms of copper recovered from copper ore, old tailings, and precipitates.

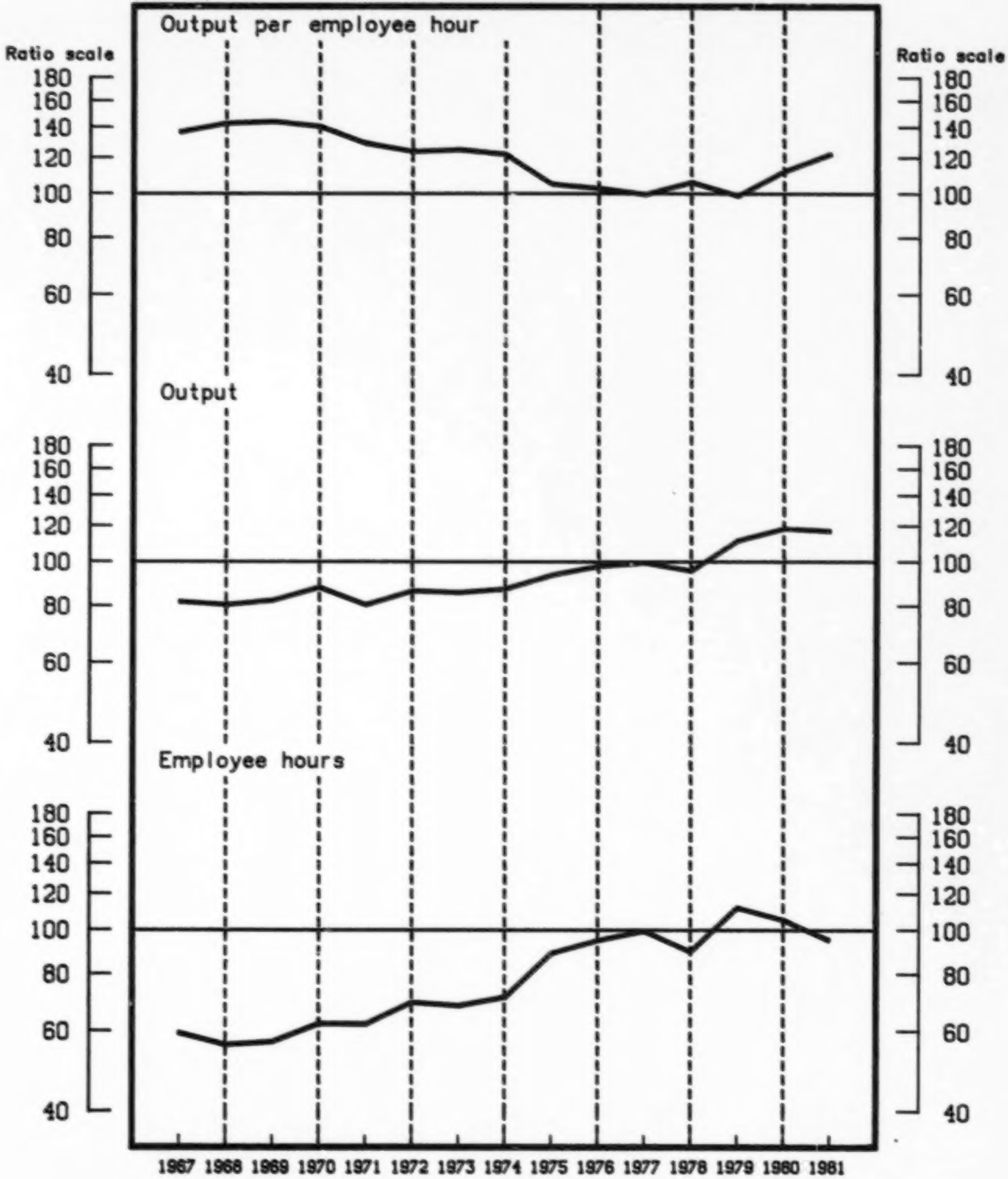
[2] Data not available.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 6. Coal mining (SIC 111, 121): Output per hour and related data, 1967-81
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

Table 10. Coal mining (SIC 111, 121): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(2)	64.2	(2)	53.8	49.3	111.1
1955	74.9	68.3	164.7	66.0	60.3	145.1
1956	78.6	71.7	169.7	69.5	63.6	149.6
1957	79.0	72.4	160.7	67.5	62.0	136.1
1958	85.3	80.1	133.3	67.4	63.4	106.6
1959	86.3	82.4	118.6	73.3	70.0	101.3
1960	91.7	88.4	117.5	78.1	75.3	99.8
1961	101.5	98.3	124.1	87.0	84.3	106.3
1962	108.9	105.4	133.5	96.3	93.2	118.0
1963	115.0	110.7	147.5	106.7	103.1	133.3
1964	121.6	117.4	151.7	113.5	108.8	140.3
1965	128.3	125.0	152.8	122.6	119.6	144.7
1966	134.7	132.0	153.4	130.7	128.2	147.1
1967	137.4	134.4	155.9	133.1	130.6	149.1
1968	143.5	141.8	155.1	137.6	136.0	147.7
1969	144.7	142.4	157.9	137.4	135.6	149.4
1970	141.1	137.5	165.4	137.1	133.8	159.7
1971	129.5	130.1	126.2	125.1	125.9	120.6
1972	124.4	121.4	143.5	121.4	119.1	136.1
1973	125.5	123.7	137.2	119.8	118.3	128.4
1974	122.5	121.3	130.0	108.9	109.1	115.3
1975	105.3	104.7	109.2	99.6	99.2	102.3
1976	103.1	102.8	104.7	98.4	98.4	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	109.6	91.6	103.2	106.7	86.9
1979	99.4	101.3	90.2	97.3	99.6	86.2
1980	112.5	115.3	98.9	108.8	112.1	93.2
1981 [3]	122.9	126.2	106.8	118.9	122.7	101.6
Average annual percent change:						
1947-81	(2)	3.2	(2)	3.3	3.8	-1.0
1976-81	3.4	4.0	.1	3.3	4.0	-.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Data not available.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 11. Coal mining (SIC 111, 121): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	64.1	(1)	99.9	(1)	119.2	129.9	57.7
1955	73.3	97.8	107.3	44.5	111.0	121.5	50.5
1956	79.6	101.3	111.0	46.9	114.5	125.1	53.2
1957	77.3	97.9	106.8	48.1	114.6	124.6	56.8
1958	64.4	75.5	80.4	48.3	95.5	101.6	60.4
1959	64.5	74.7	78.3	54.4	88.0	92.2	63.7
1960	64.5	70.3	73.0	54.9	82.6	85.7	64.6
1961	62.3	61.4	63.4	50.2	71.6	73.9	58.6
1962	64.9	59.6	61.6	48.6	67.4	69.6	55.0
1963	70.5	61.3	63.7	47.8	66.1	68.4	52.9
1964	74.2	61.0	63.2	48.9	65.4	67.6	52.9
1965	77.0	60.0	61.6	50.4	62.8	64.4	53.2
1966	79.6	59.1	60.3	51.9	60.9	62.1	54.1
1967	82.0	59.7	61.0	52.6	61.6	62.8	55.0
1968	80.8	56.3	57.0	52.1	58.7	59.4	54.7
1969	82.6	57.1	58.0	52.3	60.1	60.9	55.3
1970	88.3	62.6	64.2	53.4	64.4	66.0	55.3
1971	80.8	62.4	62.1	64.0	64.6	64.2	67.0
1972	86.7	69.7	71.4	60.4	71.4	72.6	63.7
1973	86.0	68.5	69.5	62.7	71.8	72.7	67.0
1974	87.6	71.5	72.2	67.4	79.7	80.3	76.0
1975	94.0	89.3	89.8	86.1	94.4	94.8	91.9
1976	98.3	95.3	96.6	93.9	99.9	99.9	99.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.0	90.2	87.6	104.8	93.0	90.0	110.5
1979	111.8	112.5	110.4	124.0	114.9	112.3	129.7
1980	118.9	105.7	103.1	120.2	109.3	106.1	127.6
1981 [2]	117.4	95.5	93.0	109.9	98.7	95.7	115.6
Average annual percent change:							
1947-81	.8	(1)	-2.3	(1)	-2.4	-2.9	1.8
1976-81	4.6	1.1	.5	4.4	1.2	.5	4.8

[1] Data not available.

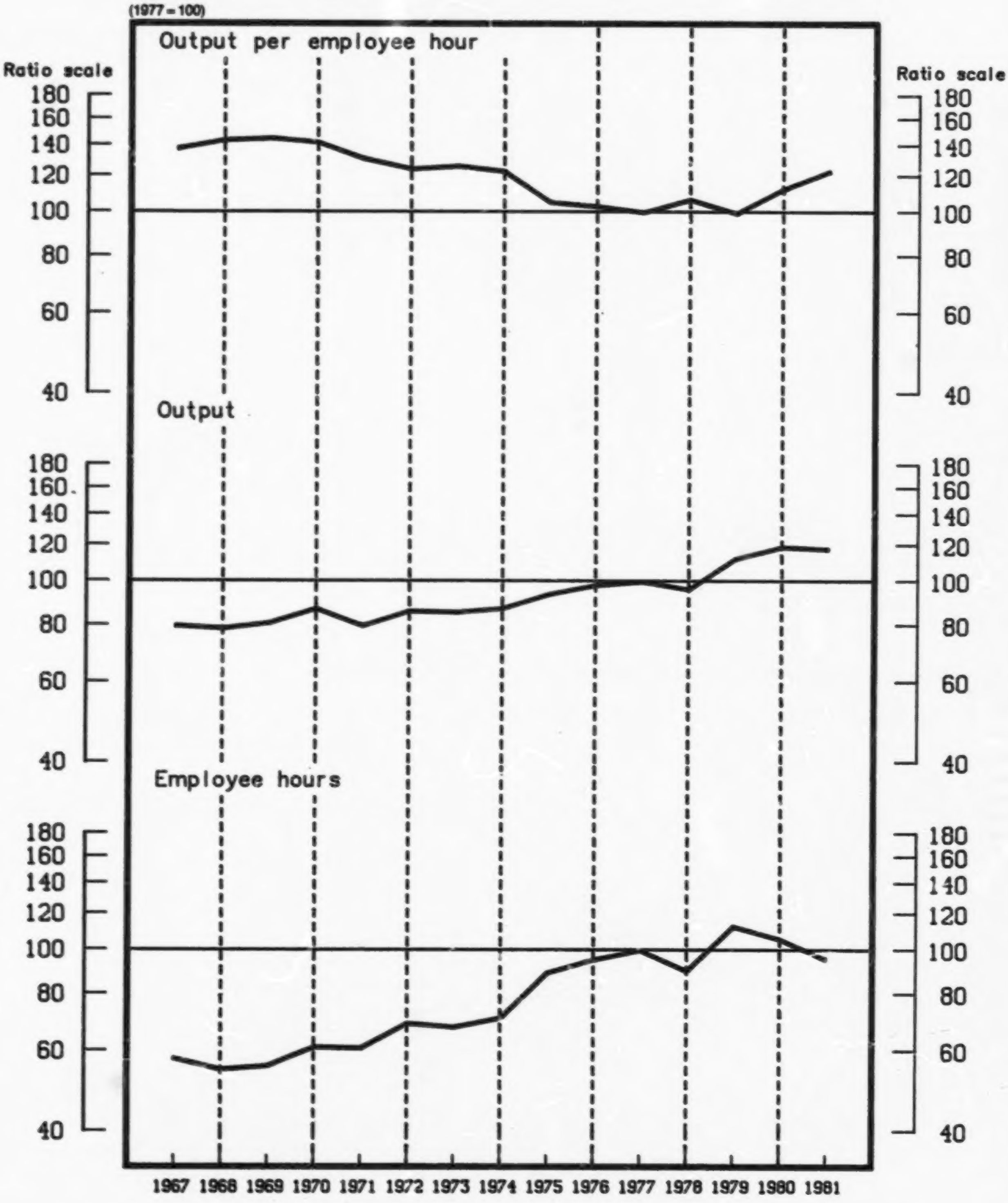
[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 7. Bituminous coal and lignite mining (SIC 121): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 12. Bituminous coal and lignite mining (SIC 121): Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(2)	64.8	(2)	55.0	50.2	125.2
1955	76.5	69.3	181.6	66.2	62.0	160.4
1956	78.4	71.3	177.0	70.3	64.1	156.7
1957	79.3	72.7	162.0	68.8	63.3	138.7
1958	85.6	80.3	135.6	68.3	64.1	109.2
1959	86.4	82.3	119.4	74.1	70.7	102.6
1960	92.3	88.6	119.5	79.2	76.2	102.4
1961	102.3	99.0	125.4	87.9	85.2	107.8
1962	109.3	105.7	134.0	96.8	93.9	118.9
1963	114.9	110.7	147.3	106.8	103.3	133.9
1964	122.0	116.1	148.8	114.8	111.0	142.2
1965	129.3	126.0	151.5	124.7	121.5	146.7
1966	135.2	132.6	151.1	132.2	129.7	147.6
1967	138.0	135.0	157.0	134.3	131.8	151.0
1968	144.0	142.2	155.6	138.4	137.0	148.3
1969	145.3	143.0	159.0	138.9	137.0	150.7
1970	142.3	138.4	167.7	138.6	135.2	162.1
1971	131.0	131.4	128.3	126.2	127.0	122.4
1972	124.6	121.6	144.2	121.6	119.3	136.9
1973	128.3	124.4	137.6	120.2	118.7	129.1
1974	123.0	121.8	130.7	110.1	109.3	115.3
1975	105.2	104.5	109.7	99.5	98.9	102.5
1976	103.0	102.7	104.7	98.4	98.3	99.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.7	109.8	92.1	103.3	106.9	87.0
1979	99.6	101.4	90.1	97.5	99.6	86.1
1980	112.6	115.5	98.8	108.9	112.1	93.0
1981 [3]	123.3	126.9	106.8	119.6	123.2	101.8
Average annual percent change:						
1947-81	(2)	3.2	(2)	3.3	3.8	-1.3
1976-81	3.4	4.1	.1	3.4	4.1	-.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Data not available.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 13. Bituminous coal and lignite mining (SIC 121): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	56.7	(1)	87.5	(1)	103.0	113.0	45.3
1955	67.2	87.9	97.0	37.0	98.6	108.4	41.9
1956	72.4	92.4	101.5	40.9	103.0	112.9	46.2
1957	71.3	89.9	98.1	44.0	103.6	112.6	51.4
1958	59.4	69.4	74.0	43.8	87.0	92.6	54.4
1959	59.6	69.0	72.4	49.9	80.4	84.3	58.1
1960	60.1	65.1	67.8	50.3	75.9	78.9	58.7
1961	58.3	57.0	58.9	46.5	66.3	68.4	54.1
1962	61.1	55.9	57.8	45.6	63.1	65.1	51.4
1963	66.3	57.7	59.9	45.0	62.1	64.2	49.5
1964	70.4	57.7	59.8	47.3	61.3	63.4	49.5
1965	74.1	57.3	58.8	48.9	59.4	61.0	50.5
1966	77.2	57.1	58.2	51.1	58.4	59.5	52.3
1967	79.9	57.9	59.2	50.9	59.5	60.6	52.9
1968	78.9	54.8	55.5	50.7	57.0	57.6	53.2
1969	81.1	55.8	56.7	51.0	58.4	59.2	53.8
1970	87.2	61.3	63.0	52.0	62.9	64.5	53.8
1971	79.9	61.0	60.8	62.3	63.3	62.9	65.3
1972	86.1	69.1	70.8	59.7	70.8	72.2	62.9
1973	85.6	67.8	68.8	62.2	71.2	72.1	66.3
1974	87.3	71.0	71.7	66.6	79.3	79.9	75.7
1975	93.8	89.2	89.8	85.5	94.3	94.8	91.5
1976	98.2	95.3	95.6	93.8	99.6	99.9	99.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.2	90.2	87.6	104.4	93.1	90.0	110.6
1979	112.3	112.8	110.7	124.6	115.2	112.5	130.4
1980	119.1	105.8	103.1	120.5	109.4	106.2	128.0
1981 [2]	117.9	95.6	92.9	110.4	98.6	95.7	115.8
Average annual percent change:							
1947-81	1.4	(1)	-1.8	(1)	-1.9	-2.3	2.7
1976-81	4.7	1.2	.5	4.5	1.2	.5	4.9

[1] Data not available.

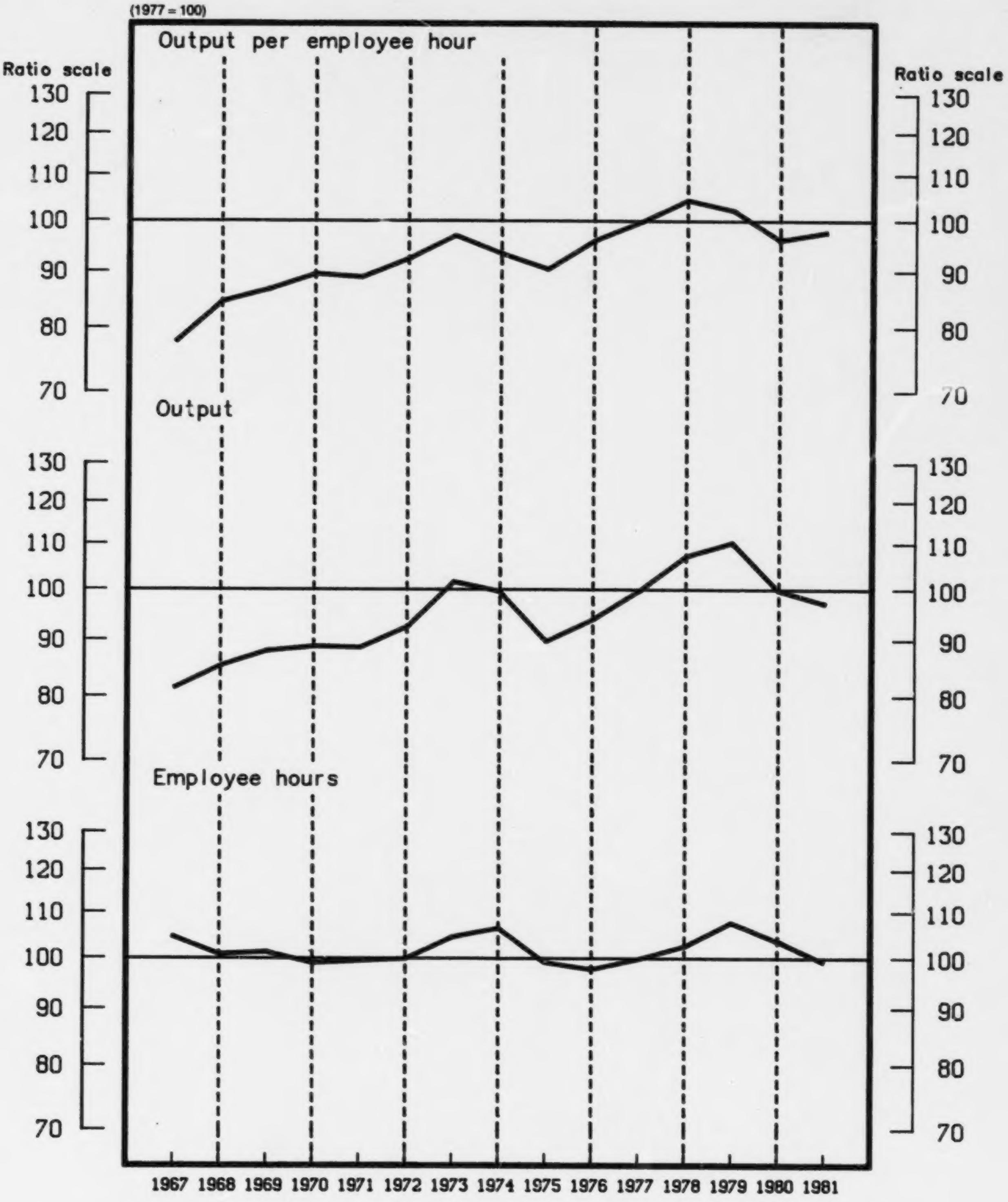
[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy. Employmunt and hours based on data from the Bureau of Labor Statistics supplementnd with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 8. Nonmetallic minerals, except fuels (SIC 14): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 14. Nonmetallic minerals, except fuels (SIC 14): Indexes of output per employee hour and output per employee, 1954–81
(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	(2)	51.1	(2)	54.0	50.3	75.6
1955	(2)	53.4	(2)	57.0	53.0	80.2
1956	(2)	54.3	(2)	58.1	54.0	81.9
1957	(2)	56.5	(2)	59.2	55.5	79.9
1958	60.4	57.0	77.6	58.7	55.4	76.2
1959	61.5	58.1	79.9	61.4	57.8	80.5
1960	61.6	58.5	77.1	60.5	57.4	76.2
1961	64.2	61.3	78.1	63.3	60.4	78.2
1962	67.5	64.3	83.2	67.1	63.9	82.8
1963	70.3	67.5	83.3	70.5	67.5	84.3
1964	73.6	70.9	86.5	74.7	71.7	88.8
1965	75.2	72.0	90.6	77.2	73.8	94.2
1966	78.9	75.4	94.9	80.9	77.4	97.4
1967	77.9	75.2	89.5	79.1	76.3	91.9
1968	84.7	81.7	97.2	85.2	82.4	98.5
1969	86.9	83.8	100.9	86.9	85.8	103.6
1970	89.7	86.8	102.2	89.9	87.2	102.5
1971	89.1	87.1	96.8	89.6	87.7	97.7
1972	92.6	90.7	100.0	92.4	91.1	98.5
1973	97.2	96.0	101.6	99.4	98.2	105.4
1974	93.6	92.9	96.1	95.0	93.8	99.8
1975	90.6	91.6	86.5	89.4	89.6	88.9
1976	96.2	96.4	95.1	95.2	95.5	94.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	104.2	106.0	105.1	104.7	106.5
1979	102.4	102.1	103.3	103.5	103.1	104.8
1980	96.3	97.8	91.2	94.4	95.6	90.3
1981 [3]	97.9	101.7	85.4	94.7	98.1	84.1
Average annual percent change:						
1954-81	(2)	2.8	(2)	2.5	2.9	1.0
1976-81	-.1	.5	-2.4	-.6	(4)	-2.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Data not available.

[3] Preliminary.

[4] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 15. Nonmetallic minerals, except fuels (SIC 14): Indexes of output, employee hours, and employees, 1954–81
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.0	(1)	95.8	(1)	90.7	97.4	64.8
1955	53.3	(1)	99.9	(1)	93.5	100.5	68.5
1956	57.8	(1)	106.5	(1)	99.4	107.0	70.5
1957	58.4	(1)	103.3	(1)	98.7	105.3	73.1
1958	58.2	96.4	102.1	75.0	99.2	105.1	76.4
1959	63.8	103.7	109.9	79.8	103.9	110.4	79.3
1960	64.2	104.2	109.7	83.3	106.1	111.9	84.3
1961	65.5	102.0	106.8	83.9	103.4	106.4	83.6
1962	68.4	101.3	106.3	82.2	101.9	107.0	82.6
1963	71.1	101.2	105.4	85.4	100.9	105.3	84.3
1964	74.9	101.7	105.6	86.6	100.3	104.5	84.3
1965	79.7	106.0	110.7	88.0	103.2	108.0	84.6
1966	84.5	107.1	112.0	89.0	104.5	109.2	86.8
1967	81.6	104.8	106.5	91.2	103.2	107.0	88.8
1968	85.5	101.0	104.6	88.0	100.3	103.7	86.8
1969	88.2	101.5	105.2	87.4	99.2	102.8	85.1
1970	89.0	99.2	102.5	87.1	99.0	102.1	86.8
1971	88.8	99.7	102.0	91.7	99.1	101.2	90.9
1972	92.7	100.1	102.2	92.7	100.3	101.8	94.1
1973	101.8	104.7	106.0	100.2	102.4	103.7	96.6
1974	99.8	106.6	107.4	103.8	105.1	106.4	100.0
1975	90.0	99.3	98.2	104.0	100.7	100.5	101.2
1976	94.2	97.9	97.7	99.1	98.9	98.6	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.4	102.7	103.1	101.3	102.2	102.6	100.8
1979	110.5	107.9	106.2	107.0	106.8	107.2	105.4
1980	100.0	103.8	102.2	109.7	105.9	104.6	110.7
1981 [2]	97.3	99.4	95.7	113.9	102.7	99.2	115.7
Average annual percent change:							
1954-81	2.7	(1)	-.1	(1)	.2	-.1	1.7
1976-81	.5	.7	(3)	3.0	1.2	.6	3.1

[1] Data not available.

[2] Preliminary.

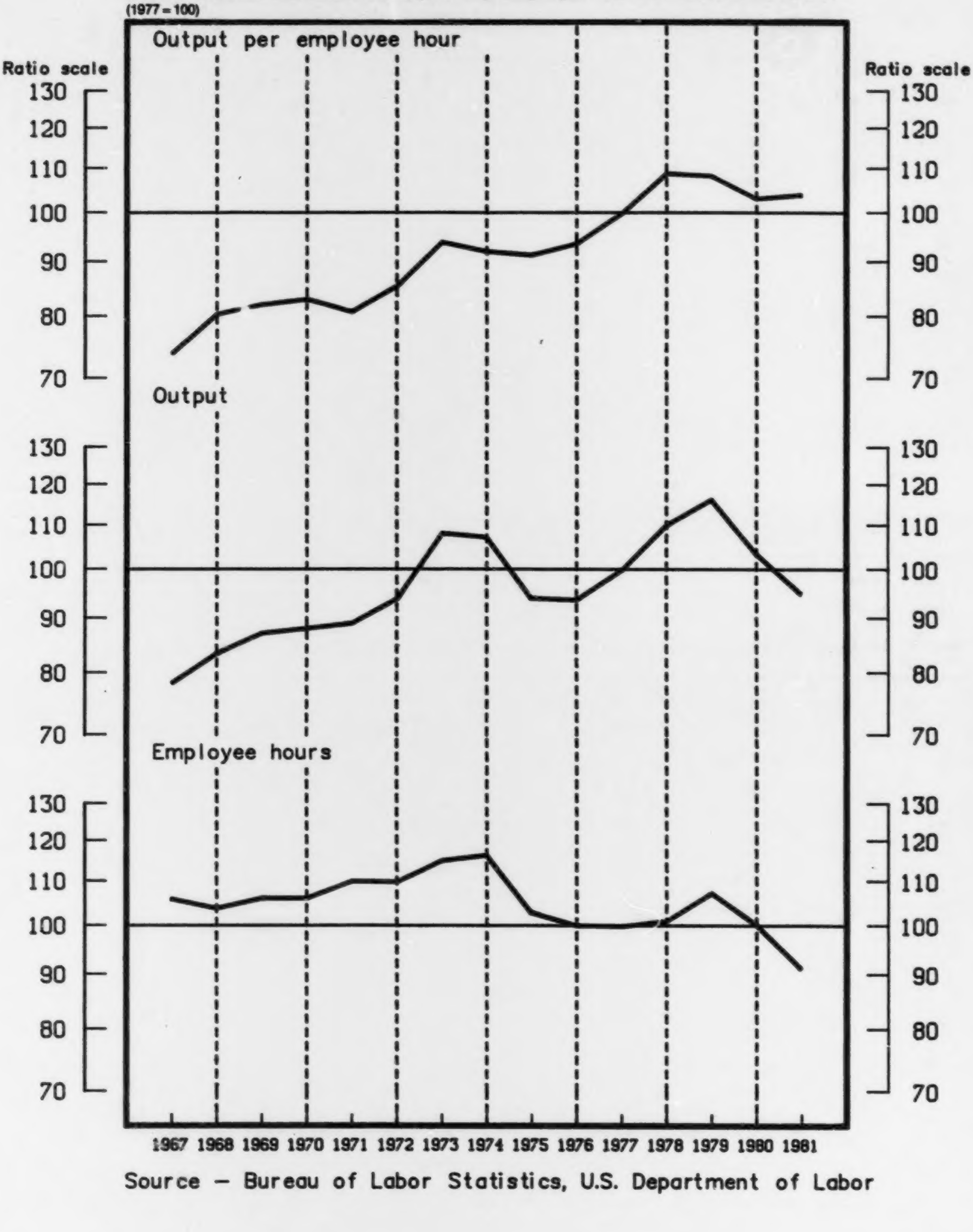
[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

BEST DOCUMENT AVAILABLE

Chart 9. Crushed and broken stone (SIC 142): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 16. Crushed and broken stone (SIC 142): Indexes of output per employee hour and output per employee, 1958–81
(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	53.6	52.1	62.1	53.1	51.7	60.9
1959	55.1	53.6	64.0	56.2	54.7	64.4
1960	55.5	54.3	62.5	55.2	54.0	61.8
1961	56.6	55.3	64.5	57.0	55.6	64.5
1962	59.6	57.8	70.6	60.4	58.7	70.3
1963	61.7	60.3	69.7	63.2	61.8	70.6
1964	66.6	65.3	74.1	68.4	67.0	76.1
1965	69.9	68.0	81.2	73.6	71.7	84.4
1966	74.2	72.4	84.9	78.0	76.4	87.0
1967	74.0	72.9	79.9	77.0	76.0	82.1
1968	80.5	79.1	87.7	83.2	82.0	88.9
1969	82.2	80.6	91.8	86.2	84.7	94.3
1970	83.1	82.6	85.3	84.9	84.8	85.6
1971	80.9	81.3	78.9	83.3	84.0	79.7
1972	85.5	84.8	88.8	86.2	86.0	87.5
1973	94.0	93.9	94.6	97.7	97.7	98.0
1974	92.1	92.7	88.8	95.2	95.8	92.2
1975	91.4	93.7	81.8	90.1	91.5	84.1
1976	93.7	94.3	90.6	93.3	94.1	89.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.0	107.8	114.8	110.5	109.5	115.4
1979	108.4	106.9	116.3	111.3	110.0	118.2
1980	103.3	103.1	104.5	102.6	102.4	103.6
1981 [2]	104.1	106.5	93.8	101.0	102.9	92.2
Average annual percent change:						
1958-81	3.3	3.4	2.3	3.2	3.4	2.3
1976-81	1.8	2.0	.9	1.4	1.5	.8

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Table 17. Crushed and broken stone (SIC 142): Indexes of output, employee hours, and employees, 1958–81
(1977=100)

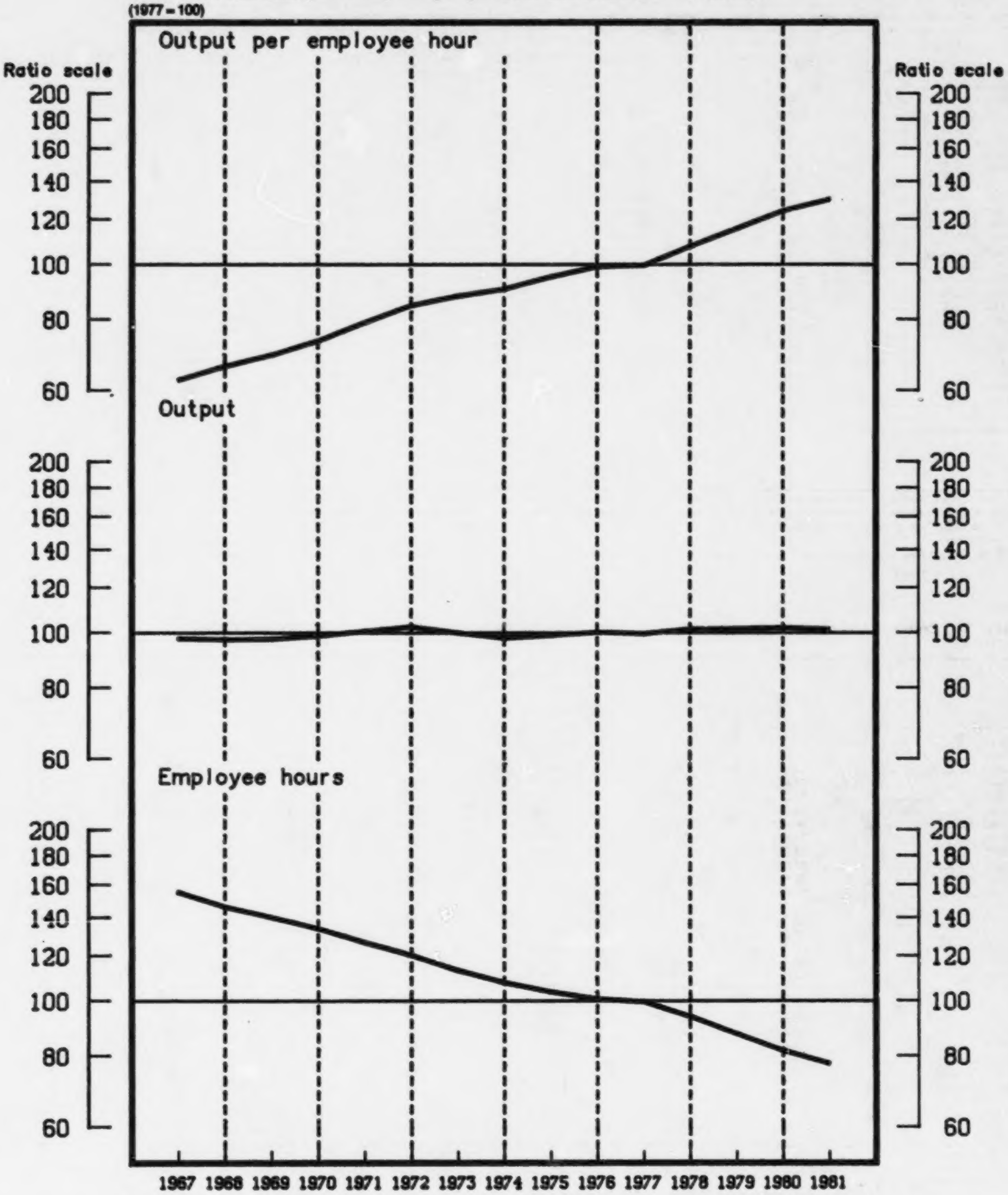
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	54.8	101.9	104.7	87.9	102.9	105.6	89.8
1959	59.6	108.1	111.1	93.1	106.1	109.0	92.6
1960	61.8	111.3	113.9	98.9	112.0	114.4	100.0
1961	60.6	107.0	109.6	94.0	106.4	109.0	94.0
1962	64.0	107.4	110.8	90.7	105.9	109.0	91.0
1963	66.4	107.7	110.2	95.3	105.1	107.4	94.0
1964	70.5	105.8	108.0	95.1	103.1	105.3	92.6
1965	76.8	109.9	113.0	94.6	104.4	107.1	91.0
1966	81.8	110.2	113.0	96.4	104.9	107.1	94.0
1967	78.4	106.0	107.6	98.1	101.8	103.1	95.5
1968	83.6	103.9	105.7	95.3	100.5	101.9	94.0
1969	87.3	106.2	108.3	95.1	101.3	103.1	92.6
1970	88.2	106.2	106.8	103.4	103.9	104.0	103.0
1971	89.2	110.2	109.7	113.0	107.1	106.2	111.9
1972	94.0	110.0	110.9	105.8	109.0	109.3	107.4
1973	108.2	115.1	115.2	114.4	110.7	110.7	110.4
1974	107.3	118.5	115.7	120.9	112.7	112.0	116.4
1975	94.1	102.9	100.4	115.0	104.4	102.8	111.9
1976	93.8	100.1	99.5	103.5	100.5	99.7	104.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	110.2	101.1	102.2	96.0	99.7	100.6	95.5
1979	116.4	107.4	108.9	100.1	104.6	105.8	98.5
1980	103.6	100.3	100.5	99.1	101.0	101.2	100.0
1981 [1]	95.0	91.3	89.2	101.3	94.1	92.3	103.0
Average annual percent change:							
1958-81	3.0	-.3	-.5	.6	-.2	-.4	.6
1976-81	.6	-1.1	-1.3	-.3	-.7	-.9	-.1

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics supplemented with data from the Mine Safety and Health Administration, U.S. Department of Labor.

Chart 10. Fluid milk (SIC 2026): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 18. Fluid milk (SIC 2026): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958–81
(1977=100)

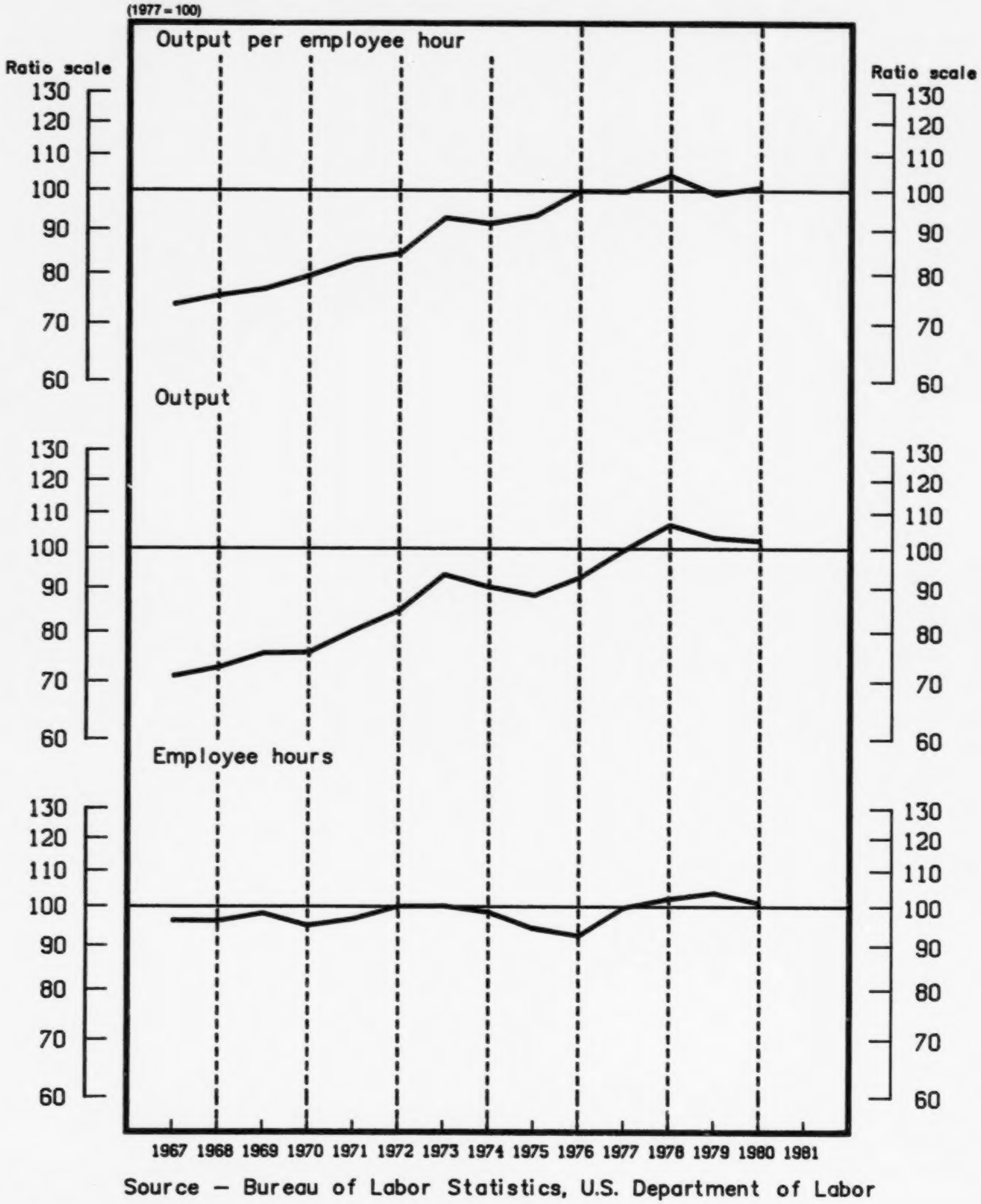
Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	48.5	48.4	89.8	185.0	185.6
1959	49.8	49.7	92.0	184.9	185.0
1960	50.9	50.8	93.3	183.2	183.6
1961	51.9	51.8	93.7	180.7	180.8
1962	54.2	53.8	95.3	175.8	177.3
1963	57.4	56.8	98.6	171.8	173.7
1964	58.6	57.9	100.0	170.7	172.6
1965	59.3	58.7	99.8	168.2	170.0
1966	61.0	60.3	98.5	161.5	163.4
1967	62.9	62.2	98.1	156.0	157.7
1968	66.5	64.4	97.7	147.0	151.7
1969	69.6	67.3	98.0	140.9	145.6
1970	73.7	71.3	99.2	134.6	139.1
1971	79.4	77.3	101.1	127.3	130.8
1972	85.1	83.7	102.9	120.9	122.9
1973	88.4	87.2	100.4	113.6	115.1
1974	90.9	89.7	98.3	108.1	109.6
1975	95.5	94.3	99.4	104.1	105.4
1976	99.5	98.1	100.6	101.1	102.5
1977	100.0	100.0	100.0	100.0	100.0
1978	108.1	106.7	101.9	94.3	95.5
1979	116.2	114.1	102.0	87.8	89.4
1980	124.8	123.0	102.5	82.1	83.3
1981 [1]	130.7	127.9	101.8	77.9	79.6
Average annual percent change:					
1958-81	4.5	4.4	.4	-3.9	-3.8
1976-81	6.2	5.9	.4	-5.5	-5.2

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Economic Research Service, U.S. Department of Agriculture; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 11. Preserved fruits and vegetables (SIC 203): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 19. Preserved fruits and vegetables (SIC 203): Indexes of output per employee hour and output per employee, 1954–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	53.0	51.1	66.6	53.5	51.3	69.0
1955	54.2	52.4	67.2	53.4	51.3	69.3
1956	58.5	56.6	71.1	58.6	56.5	73.5
1957	55.2	56.3	49.5	55.8	56.8	51.1
1958	54.7	53.7	60.4	55.3	54.2	62.2
1959	54.8	53.6	62.2	58.3	55.1	64.0
1960	58.6	57.3	68.4	60.8	59.4	69.7
1961	60.3	58.8	71.8	61.6	60.1	72.1
1962	63.2	61.5	75.6	65.4	63.8	75.5
1963	65.8	64.5	75.3	66.0	64.6	75.1
1964	67.9	66.7	75.8	68.8	67.6	75.9
1965	70.3	69.0	79.0	71.5	70.4	78.8
1966	70.0	68.7	79.0	70.9	69.7	78.6
1967	73.8	71.6	89.6	75.5	73.6	89.1
1968	75.6	73.4	91.0	75.1	73.4	86.3
1969	76.9	74.9	91.2	77.1	75.5	87.6
1970	79.7	78.6	87.3	79.6	78.7	85.0
1971	83.1	82.3	88.2	83.9	83.2	87.3
1972	84.6	83.8	89.9	85.4	84.6	90.4
1973	93.1	93.0	93.7	93.8	93.6	94.8
1974	91.7	90.4	99.9	92.6	91.2	101.2
1975	93.7	92.5	101.4	93.7	92.3	102.4
1976	100.1	99.4	105.2	98.4	97.2	106.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.4	103.9	107.3	103.7	103.0	107.5
1979	99.3	99.6	97.9	99.4	99.6	98.4
1980 [2]	101.2	102.4	95.1	102.7	104.2	95.8
Average annual percent change:						
1947-80	2.9	3.0	2.1	2.9	3.0	2.0
1976-80	.1	.6	-2.2	.8	1.4	-2.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the National Canners Association; U.S. Department of Agriculture; the Bureau of Labor Statistics; the Bureau of Competitive Assessment and Business Policy; the National Oceanic and Atmospheric Administration; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 20. Preserved fruits and vegetables (SIC 203): Indexes of output, employee hours, and employees, 1954–80

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	42.5	80.2	83.2	63.8	79.5	82.8	61.6
1955	44.4	81.9	84.8	66.1	83.1	86.5	64.1
1956	49.7	85.0	87.8	69.9	84.8	87.9	67.6
1957	47.5	86.1	84.3	95.9	85.2	83.6	93.0
1958	46.9	85.8	87.3	77.7	84.6	86.5	75.4
1959	47.8	87.3	89.1	76.9	84.9	86.7	74.7
1960	52.7	89.9	92.0	77.0	86.7	88.7	75.6
1961	54.0	89.5	91.9	75.2	87.6	89.8	74.9
1962	56.4	89.2	91.7	74.6	86.2	88.4	74.7
1963	58.6	89.0	90.9	77.8	88.8	90.7	78.0
1964	61.4	90.4	92.0	81.0	89.2	90.6	80.9
1965	65.1	92.6	94.3	82.4	91.0	92.5	82.6
1966	66.6	95.2	97.0	84.3	94.0	95.6	84.7
1967	71.2	96.5	99.5	79.5	94.3	96.8	79.9
1968	72.9	96.4	99.3	80.1	97.1	99.3	84.5
1969	75.7	98.4	101.1	83.0	98.2	100.3	86.4
1970	75.9	95.2	96.6	86.9	95.4	96.4	89.3
1971	80.5	96.9	97.8	91.3	95.9	96.7	92.2
1972	84.9	100.3	101.3	94.4	99.4	100.4	93.9
1973	93.5	100.4	100.5	99.8	99.7	99.9	98.6
1974	90.5	98.7	100.1	90.8	97.7	99.2	89.4
1975	88.5	94.5	95.7	87.3	94.5	95.9	86.4
1976	92.8	92.7	93.4	88.2	94.3	95.5	87.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.9	102.4	102.9	99.6	103.1	103.8	99.4
1979	103.3	104.0	103.7	105.5	103.9	103.7	105.0
1980 [1]	102.4	101.2	100.0	107.7	99.7	98.3	106.9
Average annual percent change:							
1947-80	3.7	.8	.7	1.5	.8	.6	1.7
1976-80	2.3	2.2	1.7	4.6	1.5	.9	4.7

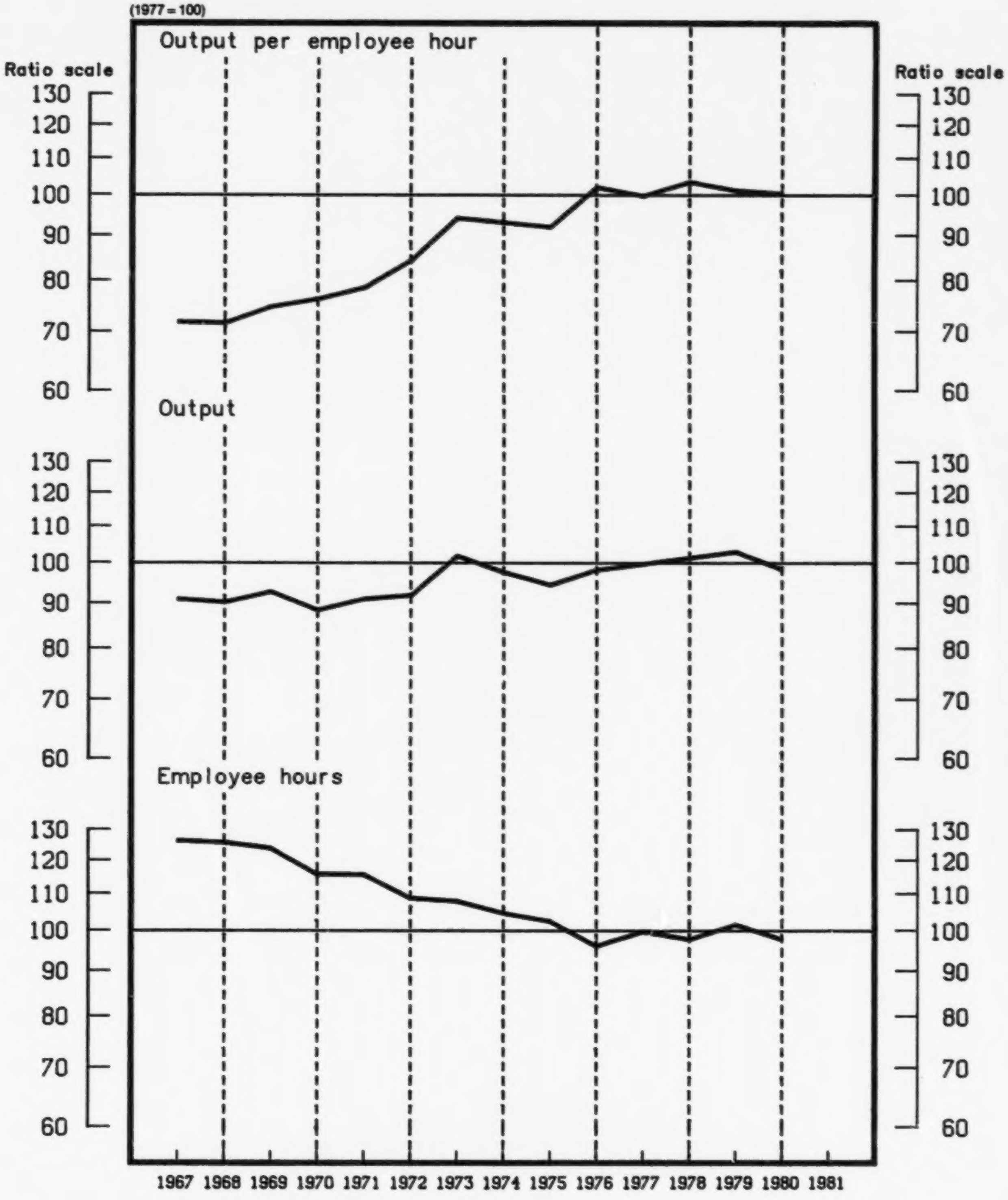
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the National Canners Association; U.S. Department of Agriculture; the Bureau of Labor Statistics; the Bureau of Competitive Assessment and Business Policy; the National Oceanic and Atmospheric Administration; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 12. Canned fruits and vegetables (SIC 2033): Output per hour and related data, 1967-80

(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 21. Canned fruits and vegetables (SIC 2033): Indexes of output per employee hour and output per employee, 1958–80
(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	53.6	53.4	54.9	54.3	54.1	56.6
1959	52.7	51.8	60.1	54.4	53.6	61.8
1960	57.7	56.5	68.2	60.4	59.3	69.5
1961	57.9	56.5	70.0	59.4	58.2	70.4
1962	59.8	58.2	74.2	62.9	61.7	74.2
1963	66.4	65.9	70.3	66.2	65.8	70.2
1964	68.0	68.0	67.9	68.7	68.9	68.1
1965	68.6	68.6	67.7	69.4	69.7	67.6
1966	70.0	70.0	69.4	71.1	71.4	69.0
1967	72.0	70.8	81.9	75.2	74.5	81.4
1968	71.8	70.4	83.0	71.9	71.1	78.7
1969	74.9	73.4	87.3	75.7	74.7	83.8
1970	76.4	75.9	80.0	76.1	75.9	77.8
1971	78.7	78.3	81.5	80.0	79.9	80.8
1972	84.5	84.7	83.3	84.8	85.1	83.8
1973	94.4	94.2	95.2	95.2	95.2	96.4
1974	93.3	91.1	113.7	94.7	92.4	115.2
1975	92.2	90.4	107.7	93.6	91.8	108.9
1976	102.3	101.2	109.4	99.0	97.5	110.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.7	103.4	106.2	101.5	100.9	105.8
1979	101.4	102.5	93.6	103.4	105.0	93.8
1980 [2]	100.6	103.1	85.4	102.1	104.8	85.7
Average annual percent change:						
1958-80	3.3	3.4	2.6	3.1	3.2	2.5
1976-80	-.2	.6	-5.5	1.0	2.0	-5.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 22. Canned fruits and vegetables (SIC 2033): Indexes of output, employee hours, and employees, 1958–80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	71.3	133.1	133.6	129.8	131.3	131.9	126.0
1959	70.5	133.7	136.0	117.4	129.6	131.6	114.0
1960	75.8	131.3	134.1	111.1	125.6	127.8	109.0
1961	76.7	132.4	135.7	109.6	129.1	131.7	109.0
1962	79.3	132.7	136.2	106.9	126.1	128.6	106.9
1963	82.1	123.6	124.6	116.8	124.0	124.8	117.0
1964	85.1	125.1	125.1	125.4	123.9	123.6	125.0
1965	84.5	123.2	123.1	124.8	121.8	121.3	125.0
1966	86.9	124.2	124.1	125.3	122.3	121.7	126.0
1967	91.2	126.7	128.9	111.4	121.2	122.4	112.0
1968	90.5	126.1	128.5	109.1	125.9	127.3	115.0
1969	93.0	124.2	126.7	106.5	122.9	124.5	111.0
1970	88.7	116.1	116.8	110.9	116.6	116.9	114.0
1971	91.3	116.0	116.6	112.0	114.1	114.2	113.0
1972	92.2	109.1	108.9	110.7	108.7	108.4	110.0
1973	102.1	108.2	108.4	107.2	107.3	107.3	105.9
1974	97.9	104.9	107.5	86.1	103.4	105.9	85.0
1975	94.7	102.7	104.8	87.9	101.2	103.2	87.0
1976	98.5	96.3	97.3	90.0	99.5	101.0	89.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.6	98.0	98.3	95.7	100.1	100.7	96.0
1979	103.2	101.8	100.7	110.2	99.8	98.3	110.0
1980 [1]	98.6	98.0	95.6	115.5	96.6	94.1	115.0
Average annual percent change:							
1958-80	1.6	-1.6	-1.7	-1.0	-1.5	-1.5	-.9
1976-80	.3	.5	-.3	6.1	-.6	-1.6	6.3

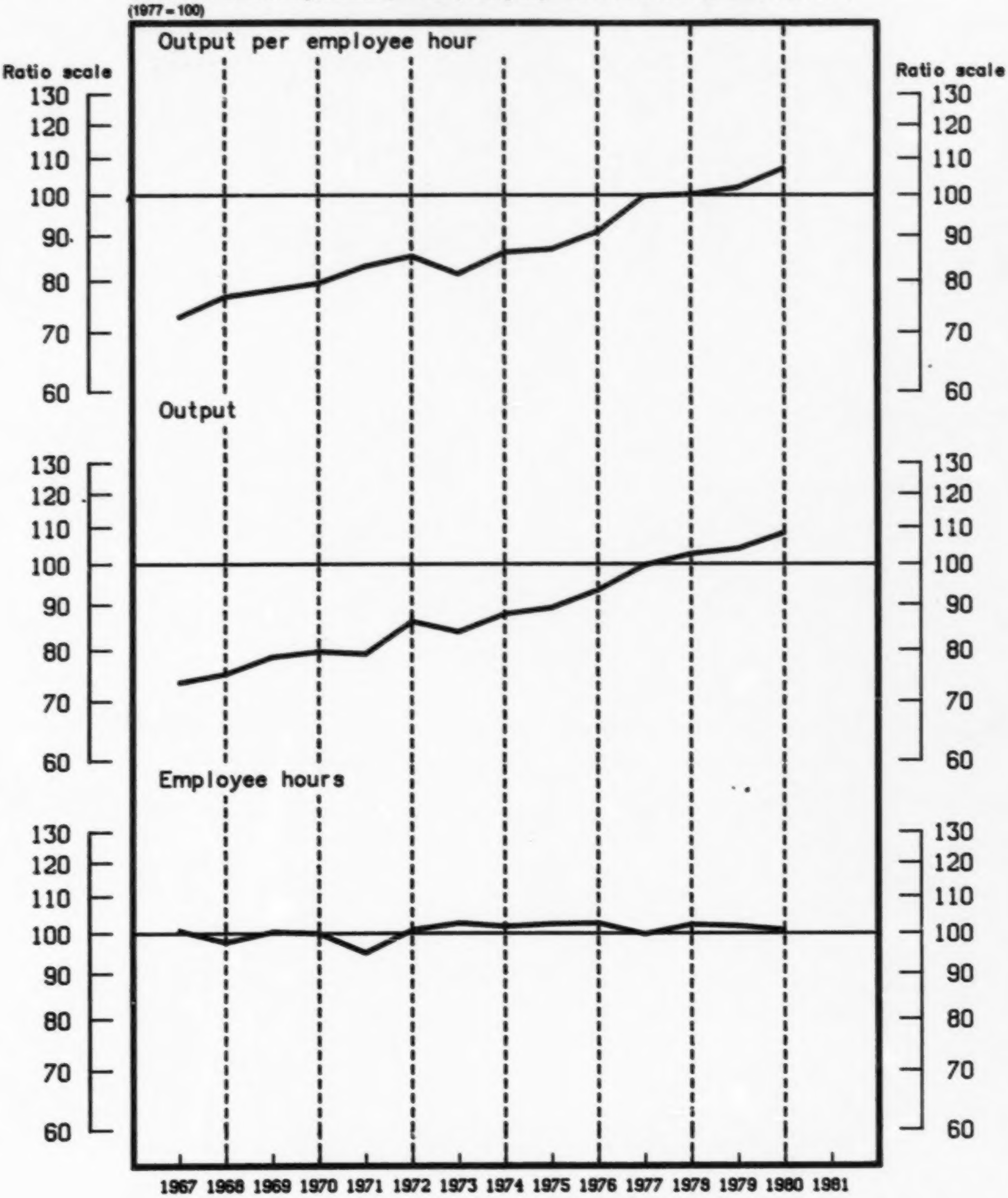
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 13. Grain mill products (SIC 204): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 23. Grain mill products (SIC 204): Indexes of output per employee hour and output per employee, 1963–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	61.0	60.8	61.5	63.0	63.8	61.3
1964	64.3	64.3	64.2	66.7	67.6	64.4
1965	66.0	66.0	65.8	68.4	69.7	65.7
1966	68.8	69.2	67.7	71.0	72.6	67.4
1967	73.0	72.8	73.6	74.4	75.0	73.3
1968	77.0	75.9	80.0	77.4	78.1	75.9
1969	78.3	77.6	80.4	79.3	80.2	77.2
1970	79.7	78.9	81.9	79.8	79.9	79.7
1971	83.3	82.5	85.4	83.1	82.5	84.6
1972	85.5	84.5	87.8	87.6	87.4	88.3
1973	81.7	80.0	86.3	86.1	85.6	87.2
1974	86.4	86.0	87.2	87.3	86.9	88.4
1975	87.1	86.2	89.5	88.6	87.9	90.3
1976	91.1	91.1	91.1	92.4	92.6	92.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.4	101.0	98.8	100.1	100.6	98.8
1979	102.2	101.5	104.3	103.1	102.4	104.6
1980 [2]	107.5	107.6	107.3	107.7	107.6	108.1
Average annual percent change:						
1963-80	3.1	3.1	3.1	2.9	2.8	3.2
1976-80	3.6	3.5	3.8	3.4	3.3	3.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 24. Grain mill products (SIC 204): Indexes of output, employee hours, and employees, 1963–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	63.1	103.4	103.8	102.6	100.2	98.9	103.0
1964	65.2	101.4	101.4	101.5	97.8	96.5	101.2
1965	65.5	99.2	99.2	99.6	95.7	94.0	99.7
1966	68.2	99.1	98.6	100.7	96.0	93.9	101.2
1967	73.7	100.9	101.2	100.2	99.0	98.3	100.6
1968	75.4	97.9	99.3	94.3	97.4	96.6	99.4
1969	78.8	100.6	101.6	98.0	99.4	98.3	102.1
1970	79.9	100.2	101.3	97.5	100.1	100.0	100.3
1971	79.4	95.3	96.2	93.0	95.5	96.3	93.8
1972	86.4	101.1	102.2	98.4	98.6	98.8	97.9
1973	84.1	102.9	105.1	97.5	97.7	98.3	96.5
1974	88.1	102.0	102.5	101.0	100.9	101.4	99.7
1975	89.5	102.7	103.8	100.0	101.0	101.8	99.1
1976	93.7	102.9	102.9	102.9	101.4	101.2	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.9	102.5	101.9	104.1	102.8	102.3	104.2
1979	104.3	102.1	102.8	100.0	101.2	101.9	99.7
1980 [1]	108.7	101.1	101.0	101.3	100.9	101.0	100.6
Average annual percent change:							
1963-80	3.2	.1	.1	.1	.3	.4	([2])
1976-80	3.4	-.1	-.1	-.3	([2])	.1	-.3

[1] Preliminary.

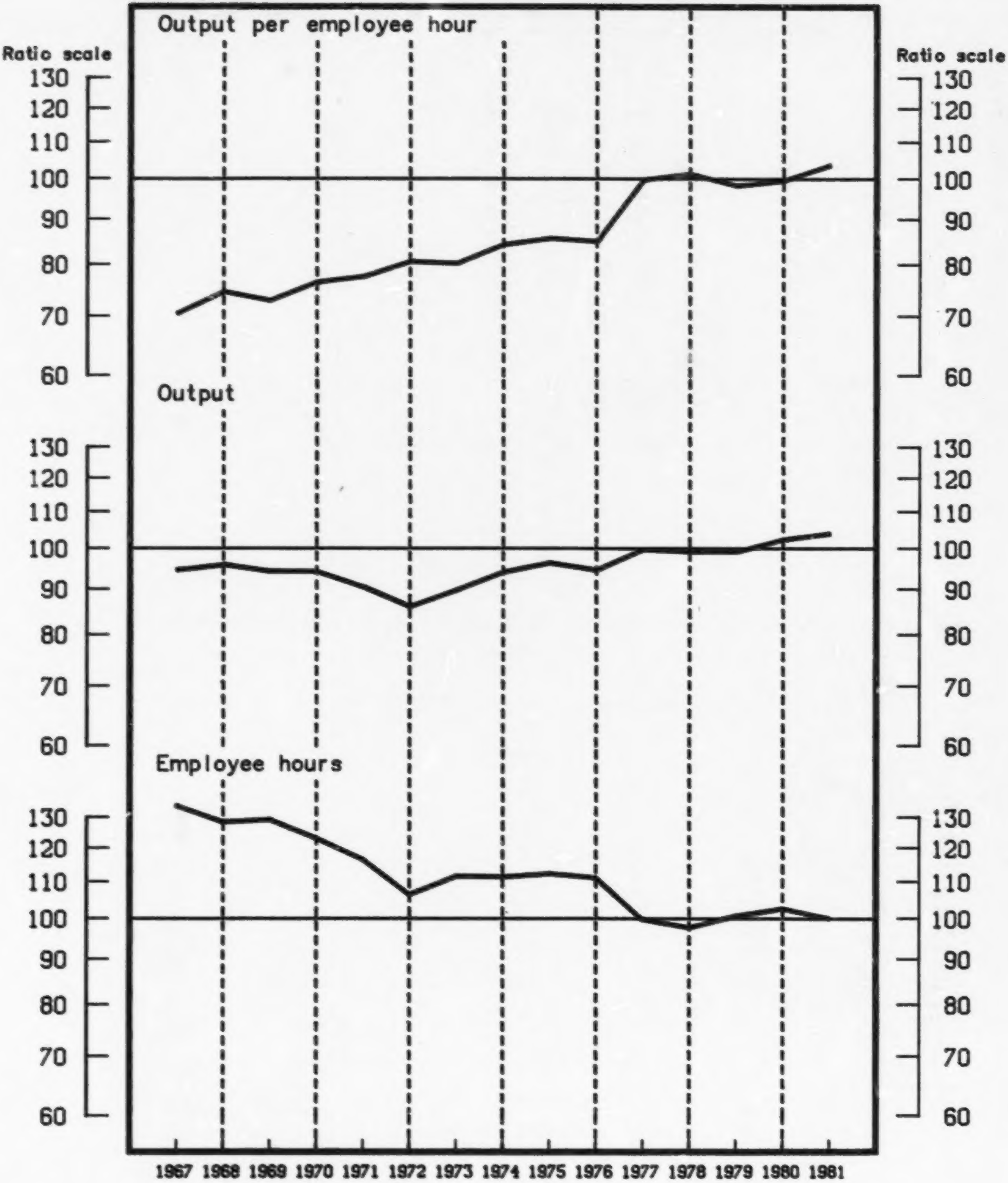
[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 14. Flour and other grain mill products (SIC 2041): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 25. Flour and other grain mill products (SIC 2041): Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour[1]			Output per employee[1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	40.2	39.5	42.5	41.5	40.6	44.0
1955	41.9	41.5	43.2	42.8	42.3	44.4
1956	44.0	43.6	45.7	44.9	44.1	47.2
1957	47.8	47.4	49.3	48.6	48.0	50.6
1958	48.7	49.2	47.7	48.7	48.6	49.2
1959	47.0	46.8	47.9	48.4	48.1	49.4
1960	49.4	49.5	49.5	51.6	52.1	50.4
1961	51.4	50.7	54.3	53.7	53.4	54.5
1962	52.9	51.5	58.0	55.7	54.9	57.9
1963	59.4	57.9	65.2	63.0	62.2	65.1
1964	62.6	61.4	66.8	65.7	65.2	66.9
1965	64.5	63.7	67.4	66.5	66.3	67.2
1966	68.4	67.2	73.2	70.7	70.1	72.6
1967	70.6	70.2	71.9	72.1	72.4	71.5
1968	74.7	73.0	80.7	75.7	75.4	76.5
1969	73.0	71.8	77.0	73.7	73.7	73.8
1970	76.6	76.0	78.8	77.6	78.0	76.6
1971	77.7	76.3	82.1	78.6	77.7	81.2
1972	80.8	78.9	87.7	83.5	81.9	88.2
1973	80.4	78.0	88.9	82.6	80.1	90.0
1974	84.4	82.6	90.9	84.5	82.1	92.1
1975	85.8	85.8	85.8	85.2	84.7	86.5
1976	85.1	86.7	80.7	84.5	85.7	81.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.5	100.2	106.0	102.7	101.2	106.9
1979	98.5	97.1	103.3	101.3	100.3	104.3
1980	99.8	98.6	104.0	103.2	102.6	105.0
1981[2]	103.9	100.1	117.5	107.0	103.3	117.9
Average annual percent change:						
1947-81	3.7	3.8	3.4	3.6	3.7	3.2
1976-81	2.8	1.9	5.8	3.7	2.9	5.8

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 26. Flour and other grain mill products (SIC 2041): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

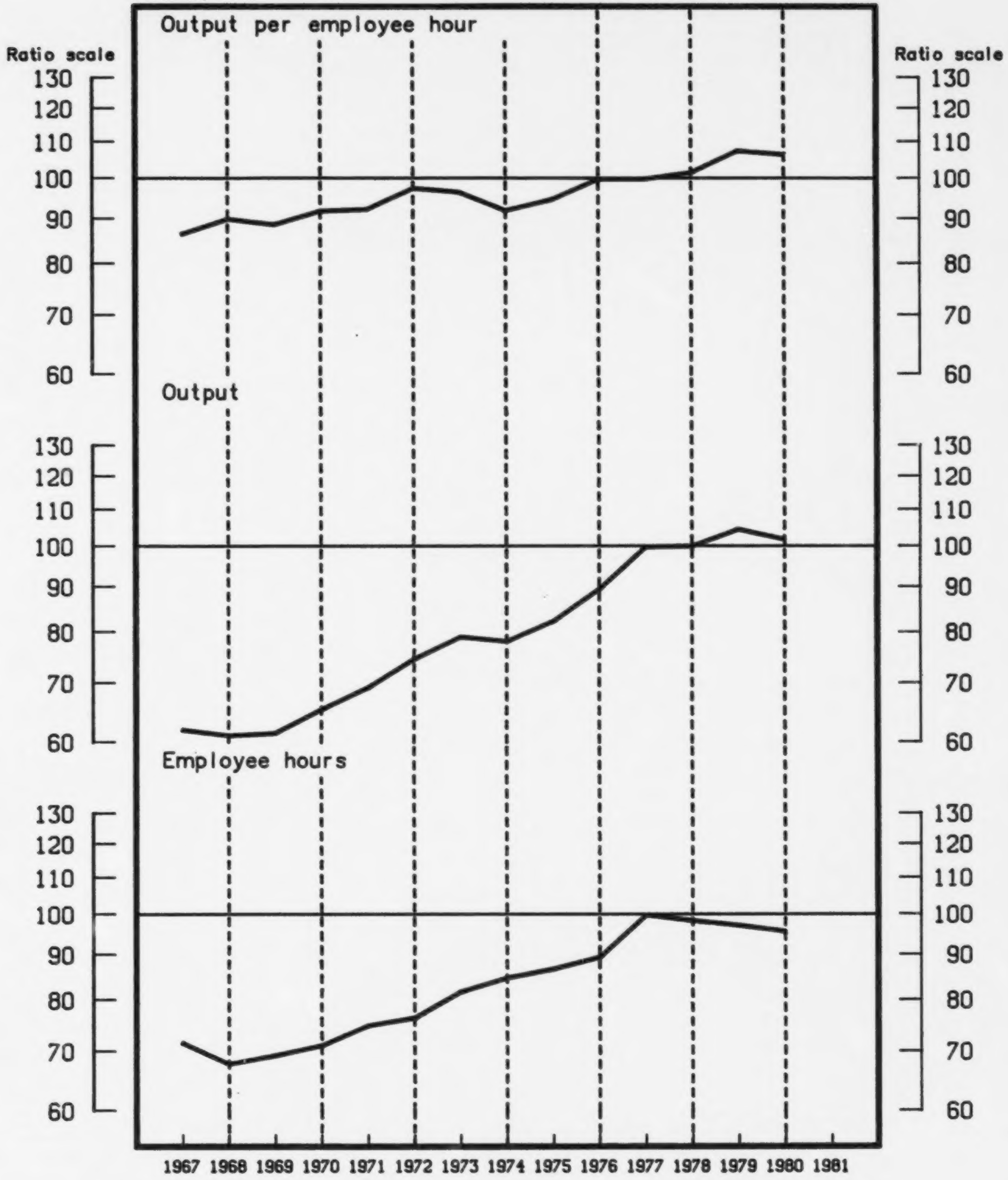
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	77.0	191.5	194.7	181.2	185.7	189.5	174.9
1955	79.1	188.9	190.6	183.1	184.8	187.2	178.0
1956	80.5	182.8	184.6	176.2	179.4	182.7	170.6
1957	84.5	176.8	178.1	171.5	173.7	176.2	166.4
1958	88.1	180.8	179.2	184.6	180.8	181.4	179.2
1959	88.5	188.1	189.1	184.6	182.7	184.0	179.3
1960	90.1	182.4	182.2	182.2	174.5	172.8	178.8
1961	91.4	177.7	180.4	168.4	170.3	171.2	167.6
1962	91.7	173.3	177.9	158.1	164.7	167.0	158.5
1963	90.4	152.1	156.1	138.6	143.6	145.3	138.9
1964	92.1	147.1	149.9	137.9	140.2	141.2	137.7
1965	88.5	137.3	139.0	131.4	133.0	133.4	131.7
1966	91.0	133.0	135.5	124.4	128.8	129.8	125.3
1967	94.8	134.2	135.0	131.8	131.4	130.9	132.6
1968	96.1	128.7	131.7	119.1	126.9	127.4	125.6
1969	94.5	129.5	131.7	122.8	128.3	128.3	128.0
1970	94.5	123.4	124.4	119.9	121.8	121.2	123.3
1971	90.7	116.8	118.8	110.5	115.4	116.8	111.7
1972	86.2	106.7	109.3	98.3	103.2	105.2	97.7
1973	90.0	111.9	115.4	101.2	108.9	112.3	100.0
1974	94.3	111.7	114.2	103.7	111.6	114.9	102.4
1975	96.6	112.6	112.6	112.6	113.4	114.1	111.7
1976	94.8	111.4	109.3	117.5	112.2	110.6	116.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.4	97.9	99.2	93.8	96.8	98.2	93.0
1979	99.4	100.9	102.4	96.2	98.1	99.1	95.3
1980	102.6	102.8	104.1	98.7	99.4	100.0	97.7
1981[1]	104.2	100.3	104.1	88.7	97.4	100.9	88.4
Average annual percent change:							
1947-81	.6	-3.0	-3.0	-2.7	-2.8	-3.0	-2.5
1976-81	1.6	-1.2	-.3	-4.0	-2.0	-1.3	-4.0

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 15. Cereal breakfast foods (SIC 2043): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 27. Cereal breakfast foods (SIC 2043): Indexes of output per employee hour and output per employee, 1963–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	79.3	81.3	66.9	76.4	77.9	69.1
1964	81.0	82.3	73.9	78.9	79.7	75.8
1965	83.0	84.4	75.2	80.0	80.9	75.4
1966	84.1	85.4	76.9	82.5	83.5	77.1
1967	86.6	88.6	76.5	83.5	84.8	76.9
1968	90.1	92.3	79.4	88.1	90.8	75.7
1969	88.8	91.0	77.9	87.7	90.3	76.2
1970	92.0	93.8	82.8	89.5	91.4	81.1
1971	92.4	94.5	81.1	90.8	92.8	81.8
1972	97.6	99.6	87.5	95.0	98.4	88.2
1973	96.6	96.9	95.0	99.0	99.2	97.9
1974	92.1	93.1	87.3	92.3	93.0	88.5
1975	94.8	95.3	92.0	97.3	98.0	93.2
1976	100.0	100.9	95.6	97.9	98.0	97.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.7	101.9	100.2	99.0	98.8	100.2
1979	107.6	105.4	122.6	105.3	102.4	123.8
1980 [2]	106.5	104.5	119.4	105.2	102.7	120.6
Average annual percent change:						
1963-80	1.6	1.4	2.9	1.8	1.6	3.0
1976-80	2.0	1.2	6.7	2.0	1.2	6.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 28. Cereal breakfast foods (SIC 2043): Indexes of output, employee hours, and employees, 1963–80

(1977 = 100)

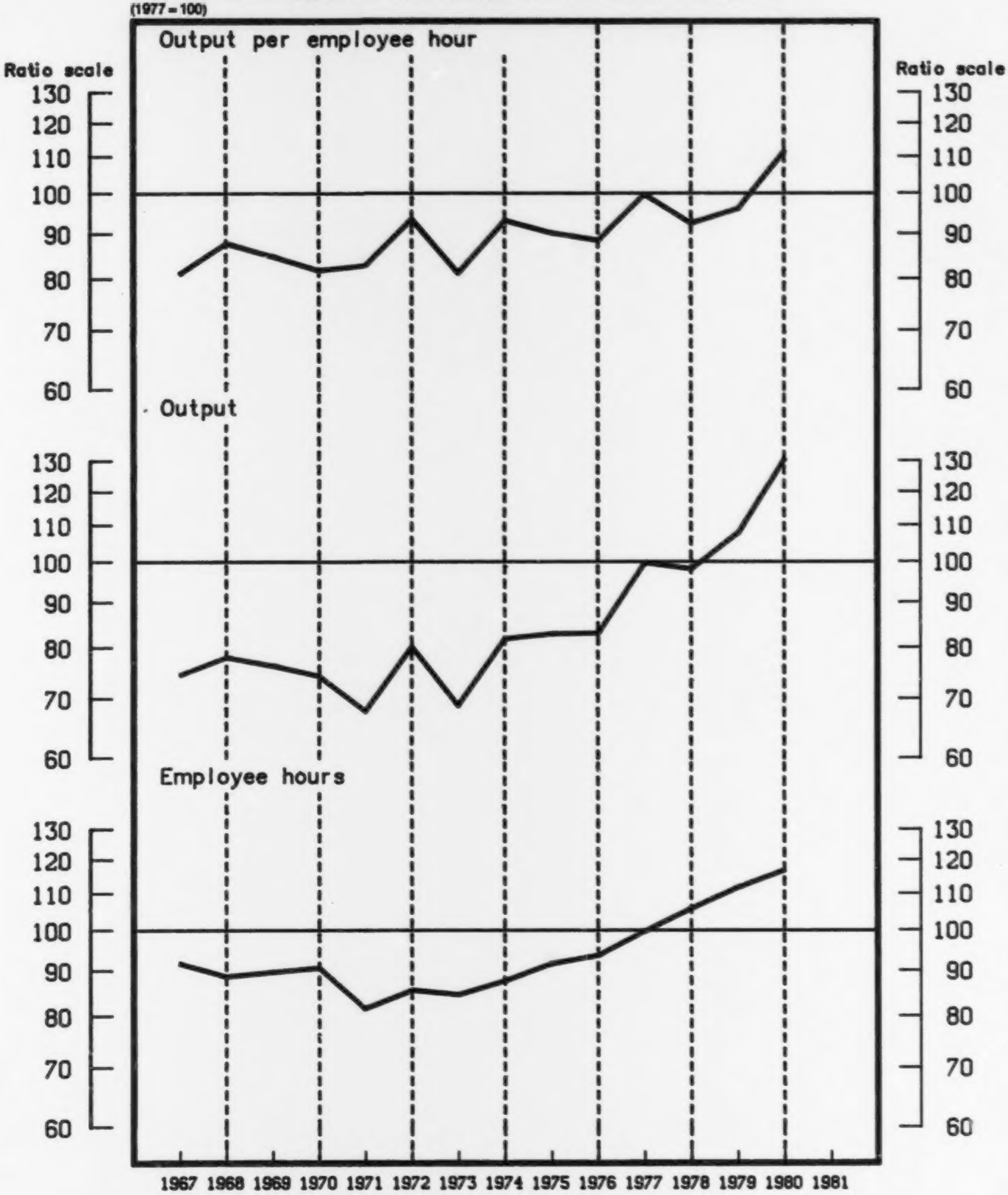
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	53.1	67.0	65.3	77.1	69.5	68.2	76.9
1964	55.4	68.4	67.3	75.0	70.2	69.5	73.1
1965	58.0	69.9	68.7	77.1	72.5	71.7	76.9
1966	59.3	70.5	69.4	77.1	71.9	71.0	76.9
1967	62.1	71.7	70.1	81.2	74.4	73.2	80.8
1968	61.2	67.9	66.3	77.1	69.5	67.4	80.8
1969	61.6	69.4	67.7	79.1	70.2	68.2	80.8
1970	65.5	71.2	69.8	79.1	73.2	71.7	80.8
1971	69.3	75.0	73.3	85.4	76.3	74.7	84.7
1972	74.7	76.5	75.0	85.4	78.6	77.5	84.7
1973	79.1	81.9	81.6	83.3	79.9	79.7	80.8
1974	78.2	84.9	84.0	89.6	84.7	84.1	88.4
1975	82.4	86.9	86.5	89.6	84.7	84.1	88.4
1976	89.6	89.6	88.8	93.7	91.5	91.4	92.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.2	96.5	98.3	100.0	101.2	101.4	100.0
1979	104.7	97.3	93.3	85.4	99.4	102.2	84.6
1980 [1]	102.0	95.6	97.6	85.4	97.0	99.3	84.6
Average annual percent change:							
1963-80	4.3	2.6	2.8	1.4	2.4	2.7	1.3
1976-80	3.1	1.1	1.8	-3.4	1.1	1.9	-3.4

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 16. Rice milling (SIC 2044): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 29. Rice milling (SIC 2044): Indexes of output per employee hour and output per employee, 1963–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	61.2	66.2	43.1	64.2	71.9	41.8
1964	69.9	74.7	51.2	74.2	81.1	51.9
1965	73.4	78.1	55.0	79.7	87.1	55.8
1966	79.1	85.6	55.5	84.4	93.7	56.2
1967	81.3	87.2	59.0	85.4	93.4	59.8
1968	88.0	93.9	65.2	89.4	97.7	62.6
1969	85.1	90.5	63.7	87.4	95.6	61.2
1970	82.0	92.1	50.7	85.1	99.3	49.7
1971	83.1	90.7	56.7	85.9	97.1	54.4
1972	93.8	102.4	63.5	96.6	107.3	64.4
1973	81.5	89.3	54.5	85.0	95.3	55.3
1974	93.4	98.6	72.4	89.5	93.8	73.0
1975	90.4	94.3	73.3	90.6	95.0	73.9
1976	88.7	92.0	73.5	85.1	87.7	74.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	92.7	102.1	61.5	92.7	103.6	60.6
1979	96.3	106.7	62.3	94.2	105.4	61.7
1980 [2]	111.8	122.3	75.6	112.3	124.8	74.9
Average annual percent change:						
1963-80	2.3	2.3	2.5	1.8	1.6	2.5
1976-80	4.3	6.5	-4.1	5.1	7.9	-4.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 30. Rice milling (SIC 2044): Indexes of output, employee hours, and employees, 1963–80

(1977=100)

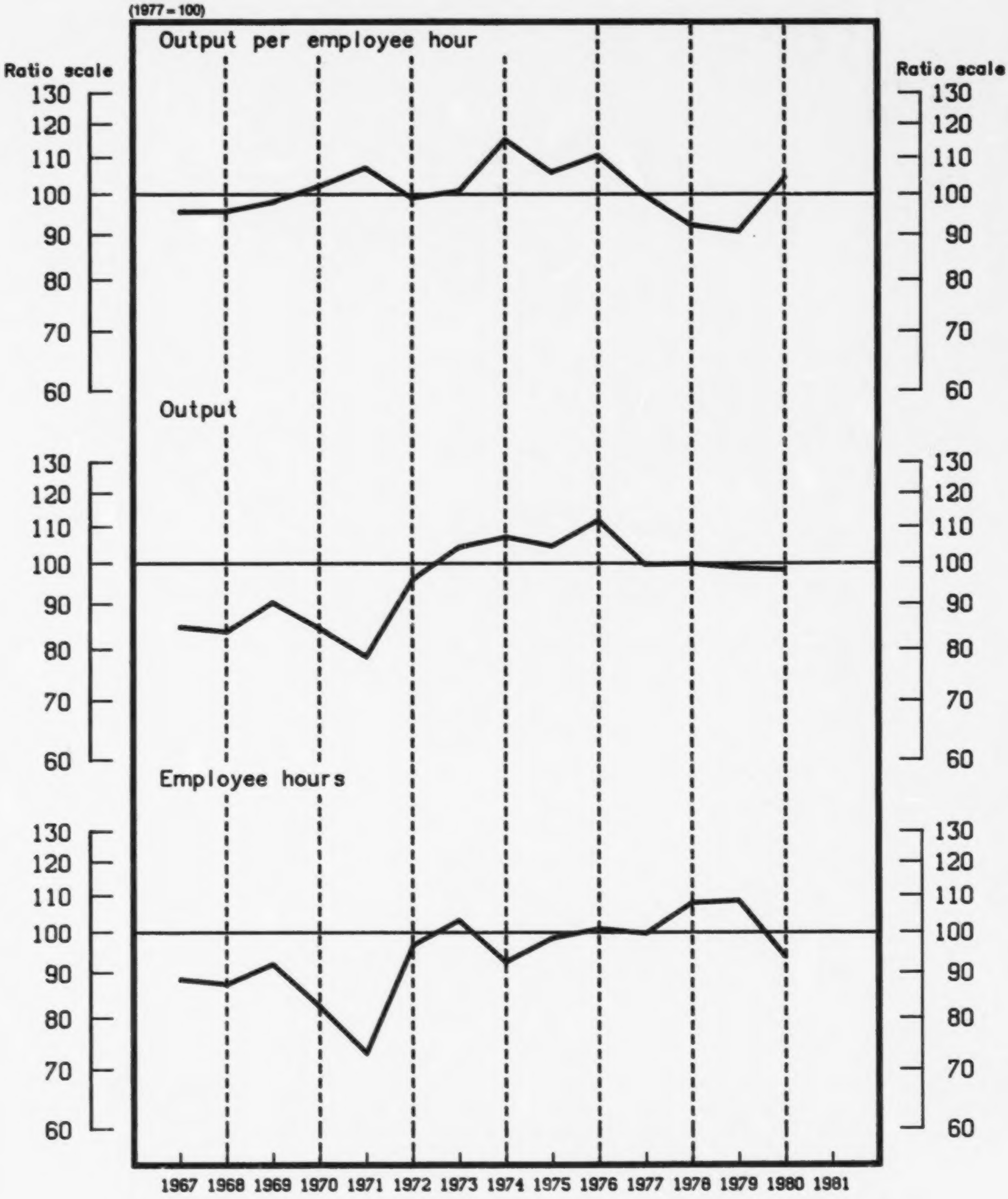
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	57.5	93.9	86.9	133.5	89.6	80.0	137.5
1964	64.9	92.9	86.9	126.7	87.5	80.0	125.0
1965	69.7	94.9	89.3	126.7	87.5	80.0	125.0
1966	70.3	88.9	82.1	126.7	83.3	75.0	125.0
1967	74.7	91.9	85.7	126.7	87.5	80.0	125.0
1968	78.2	88.9	83.3	120.0	87.5	80.0	125.0
1969	76.5	89.9	84.5	120.0	87.5	80.0	125.0
1970	74.5	90.9	80.9	146.8	87.5	75.0	150.0
1971	68.0	81.8	75.0	120.0	79.2	70.0	125.0
1972	80.5	85.8	78.6	126.7	83.3	75.0	125.0
1973	69.1	84.8	77.4	126.7	81.3	72.5	125.0
1974	82.1	87.9	83.3	113.4	91.7	87.5	112.5
1975	83.1	91.9	88.1	113.4	91.7	87.5	112.5
1976	83.3	93.9	90.5	113.4	97.9	95.0	112.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.4	106.1	96.4	160.0	106.2	95.0	162.5
1979	108.0	112.1	101.2	173.3	114.6	102.5	175.0
1980 [1]	131.0	117.2	107.1	173.3	116.7	105.0	175.0
Average annual percent change:							
1963-80	3.3	1.0	1.0	.8	1.5	1.7	.8
1976-80	10.3	5.7	3.5	15.0	5.0	2.3	15.5

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census; Agricultural Marketing Service, U.S. Department of Agriculture; the Rice Millers' Association; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 17. Blended and prepared flour (SIC 2045): Output per hour and related data, 1967-80
(1977=100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 31. Blended and prepared flour (SIC 2045): Indexes of output per employee hour and output per employee, 1963–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	78.0	76.1	82.8	78.5	76.6	83.3
1964	85.5	90.8	74.3	85.6	91.6	74.6
1965	87.5	87.4	87.9	87.6	87.1	88.8
1966	90.0	89.9	90.4	88.8	87.8	91.3
1967	95.8	91.0	110.2	95.2	89.7	110.5
1968	95.9	89.9	115.2	95.3	90.2	109.2
1969	96.2	92.9	114.4	96.6	93.9	112.1
1970	102.4	96.7	113.1	98.9	94.6	110.3
1971	107.4	101.4	126.1	105.1	97.3	128.1
1972	99.3	94.8	112.8	102.4	98.1	113.8
1973	101.1	93.7	125.6	108.5	101.2	129.5
1974	115.6	109.3	135.6	115.6	107.4	139.7
1975	106.2	100.8	122.8	107.5	101.5	124.0
1976	110.9	111.3	109.9	115.0	116.3	112.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	92.5	91.2	96.2	93.6	92.3	96.5
1979	91.0	87.5	101.2	96.8	94.2	103.0
1980 [2]	104.8	101.1	115.5	102.3	97.0	116.5
Average annual percent change:						
1963-80	1.1	1.0	1.5	1.3	1.1	1.6
1976-80	-2.1	-3.2	1.1	-2.6	-4.1	1.1

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 32. Blended and prepared flour (SIC 2045): Indexes of output, employee hours, and employees, 1963–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	67.3	86.3	88.4	81.3	85.7	87.9	80.8
1964	77.4	90.5	85.2	104.2	90.4	84.5	103.8
1965	75.1	85.8	85.9	85.4	85.7	86.2	84.6
1966	77.2	85.8	85.9	85.4	86.9	87.9	84.6
1967	85.0	88.7	93.4	77.1	89.3	94.8	76.9
1968	84.0	87.6	93.4	72.9	88.1	93.1	76.9
1969	90.6	92.3	97.5	79.2	91.7	96.5	80.8
1970	84.8	82.8	85.9	75.0	85.7	89.6	76.9
1971	78.8	73.4	77.7	62.5	75.0	81.0	61.5
1972	96.3	97.0	101.6	85.4	94.0	98.2	84.6
1973	104.6	103.5	111.6	83.3	96.4	103.4	80.8
1974	107.4	92.9	98.3	79.2	92.9	100.0	76.9
1975	104.9	98.8	104.1	85.4	97.6	103.4	84.6
1976	112.2	101.2	100.8	102.1	97.6	96.5	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.2	108.3	109.9	104.2	107.1	108.6	103.8
1979	99.1	106.9	113.2	97.9	102.4	105.2	96.2
1980 [1]	96.6	94.1	97.5	85.4	96.4	101.7	84.6
Average annual percent change:							
1963-80	2.4	1.2	1.4	.9	1.1	1.2	.8
1976-80	-2.6	-.6	.6	-3.7	(2)	1.6	-3.7

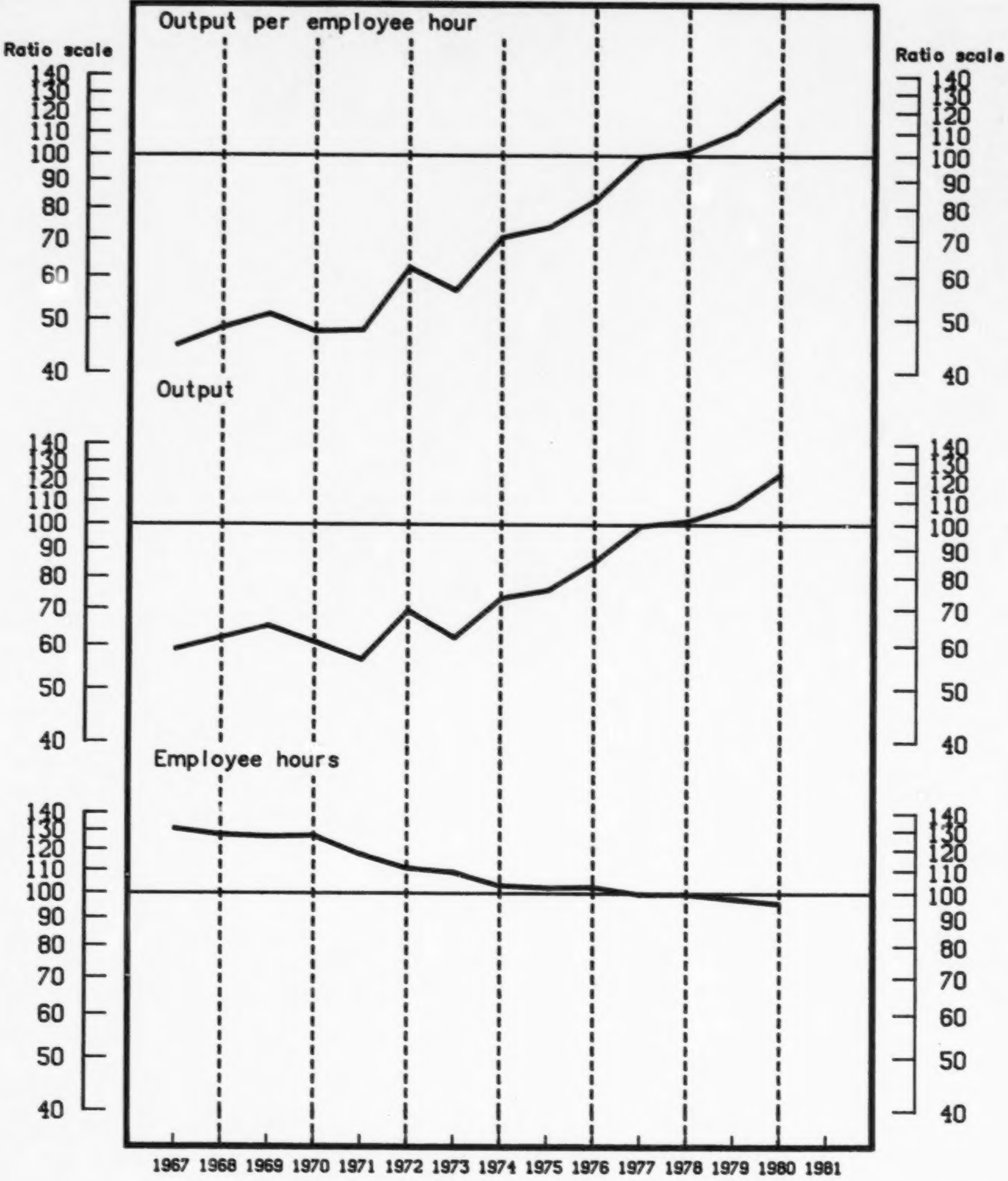
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 18. Wet corn milling (SIC 2046): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 33. Wet corn milling (SIC 2046): Indexes of output per employee hour and output per employee, 1963–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	39.2	37.2	45.6	41.0	39.5	45.2
1964	41.9	40.2	47.2	44.0	42.8	47.5
1965	41.5	40.2	45.2	44.2	43.9	45.0
1966	42.2	41.6	43.7	43.7	43.9	43.2
1967	45.1	45.8	43.0	45.8	47.2	42.8
1968	48.6	48.4	48.8	48.1	49.1	46.0
1969	51.4	51.1	52.1	52.9	54.4	49.5
1970	47.8	48.3	46.7	49.4	51.3	45.2
1971	48.1	49.6	44.6	47.7	49.3	44.1
1972	62.6	64.2	58.8	63.0	64.9	58.6
1973	56.9	57.6	54.8	58.1	59.3	55.3
1974	71.1	72.8	66.8	72.4	74.7	67.2
1975	74.1	72.4	78.9	76.2	75.2	78.7
1976	83.2	81.8	87.5	85.1	83.8	88.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.0	100.7	105.6	100.2	98.3	105.4
1979	110.8	114.5	101.7	109.7	113.0	102.1
1980 [2]	129.2	131.1	124.4	126.7	127.7	124.4
Average annual percent change:						
1963-80	7.1	7.4	6.4	6.8	6.9	6.6
1976-80	10.3	11.4	7.5	9.3	10.1	7.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 34. Wet corn milling (SIC 2046): Indexes of output, employee hours, and employees, 1963–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	49.6	126.4	133.2	108.7	121.1	125.6	109.7
1964	50.5	120.4	125.5	106.9	114.7	118.0	106.4
1965	52.3	126.1	130.0	115.6	118.4	119.2	116.1
1966	55.7	132.1	133.8	127.6	127.6	126.9	129.0
1967	59.3	131.6	129.4	137.9	129.4	125.6	138.7
1968	62.3	128.3	128.7	127.6	129.4	126.9	135.5
1969	65.5	127.4	128.1	125.8	123.8	120.5	132.2
1970	61.2	127.9	126.8	131.0	123.8	119.2	135.5
1971	56.9	118.2	114.7	127.6	119.3	115.3	129.0
1972	69.9	111.6	108.9	118.9	111.0	107.7	119.3
1973	62.4	109.7	108.3	113.8	107.4	105.2	112.9
1974	73.7	103.7	101.3	110.3	101.8	98.7	109.7
1975	76.2	102.8	105.2	96.6	100.0	101.3	96.8
1976	85.9	103.2	105.0	98.2	100.9	102.5	96.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.0	100.0	101.3	96.6	101.8	103.8	96.8
1979	108.7	98.1	94.9	106.9	99.1	96.2	106.5
1980 [1]	124.4	96.3	94.9	100.0	98.2	97.4	100.0
Average annual percent change:							
1963-80	5.1	-1.9	-2.2	-1.3	-1.6	-1.7	-1.4
1976-80	8.6	-1.6	-2.5	1.0	-.6	-1.4	1.3

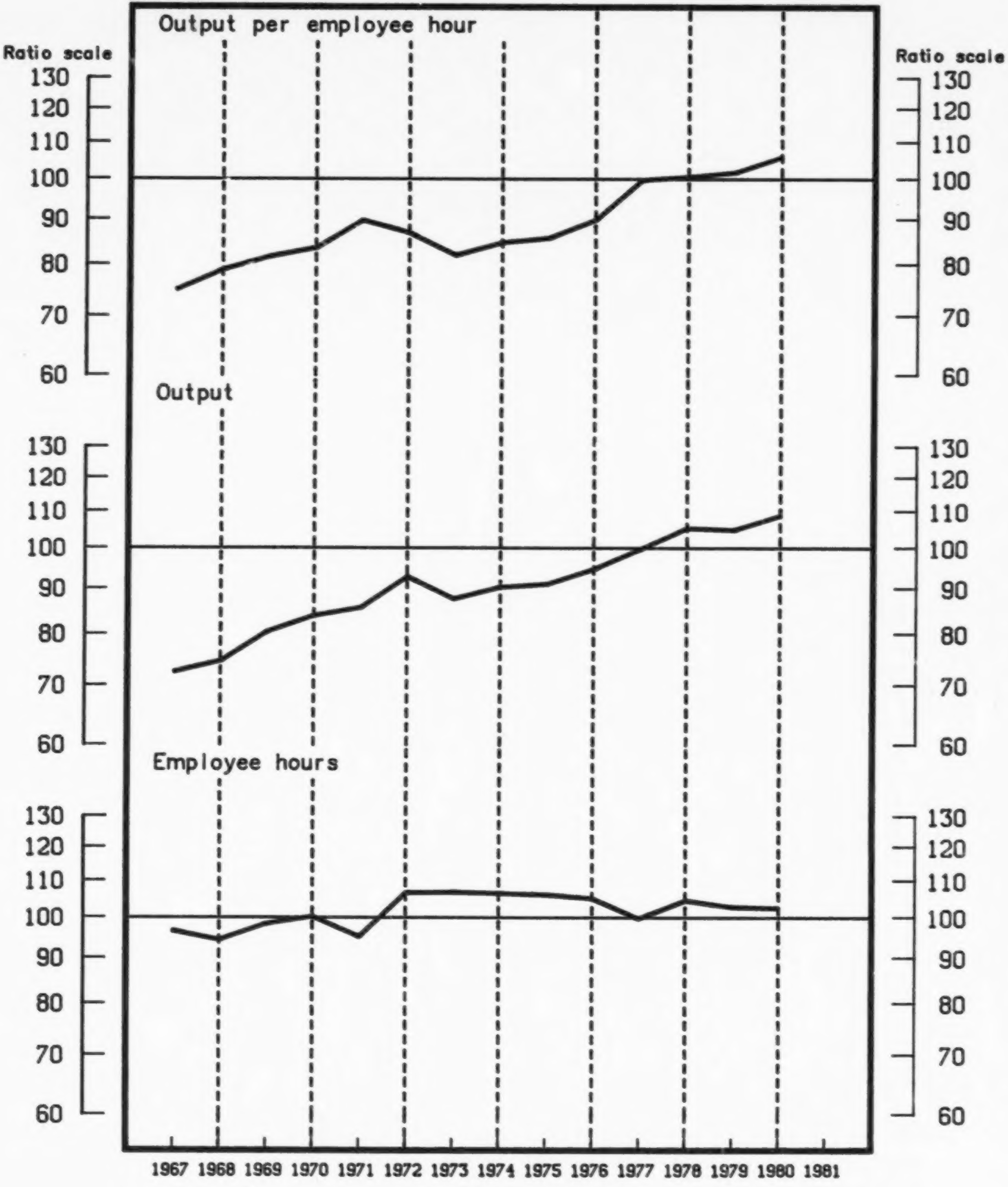
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 19. Prepared feeds for animals and fowls (SIC 2047, 2048): Output per hour and and related data, 1967-80

(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 35. Prepared feeds for animals and fowls (SIC 2047, 2048): Indexes of output per employee hour and output per employee, 1963–80
(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	61.3	61.1	61.7	63.4	64.4	61.5
1964	64.1	63.5	65.3	66.9	67.8	65.4
1965	66.2	66.2	66.2	69.4	71.4	66.2
1966	69.5	69.7	68.8	72.7	75.2	68.4
1967	75.1	73.3	78.9	77.5	76.9	78.5
1968	79.1	76.3	85.2	80.1	79.6	80.8
1969	81.8	79.4	87.1	82.8	82.3	83.5
1970	83.7	79.9	92.4	83.7	80.6	89.9
1971	90.0	86.7	97.8	89.9	86.4	97.0
1972	87.1	83.5	95.3	90.7	88.1	96.0
1973	82.1	78.6	90.5	88.3	86.5	91.6
1974	84.9	83.3	88.2	86.8	85.5	89.3
1975	85.9	83.7	90.6	88.0	86.4	91.3
1976	90.1	88.3	93.9	92.9	92.0	94.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.8	101.7	98.8	101.1	102.5	98.8
1979	102.0	100.8	104.8	103.1	102.0	105.1
1980 [2]	106.2	106.8	105.2	106.6	107.1	105.9
Average annual percent change:						
1963-80	2.9	3.0	2.9	2.8	2.6	3.0
1976-80	3.5	4.0	2.8	3.1	3.3	2.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 36. Prepared feeds for animals and fowls (SIC 2047, 2048): Indexes of output, employee hours, and employees, 1963–80
(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	60.9	99.3	99.7	98.7	96.1	94.5	99.1
1964	62.2	97.0	97.9	95.3	93.0	91.8	95.1
1965	62.6	94.5	94.6	94.5	90.2	87.7	94.5
1966	65.7	94.6	94.2	95.5	90.4	87.4	96.0
1967	72.7	96.8	99.2	92.1	93.8	94.5	92.6
1968	74.8	94.6	98.0	87.8	93.4	94.0	92.6
1969	80.7	98.6	101.7	92.6	97.5	98.1	96.6
1970	84.1	100.5	105.3	91.0	100.5	104.3	93.6
1971	85.9	95.4	99.1	87.8	95.6	99.4	88.6
1972	93.1	106.9	111.5	97.7	102.6	105.7	97.0
1973	87.9	107.0	111.8	97.1	99.6	101.6	96.0
1974	90.6	106.7	108.7	102.7	104.4	106.0	101.5
1975	91.3	106.3	109.1	100.8	103.7	105.7	100.0
1976	94.9	105.3	107.5	101.1	102.1	103.2	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	104.8	103.8	106.9	104.4	103.0	106.9
1979	105.1	103.0	104.3	100.3	101.9	103.0	100.0
1980 [1]	109.1	102.7	102.2	103.7	102.3	101.9	103.0
Average annual percent change:							
1963-80	3.5	.6	.6	.7	.8	.9	.5
1976-80	3.3	-.2	-.6	.5	.2	([2])	.6

[1] Preliminary.

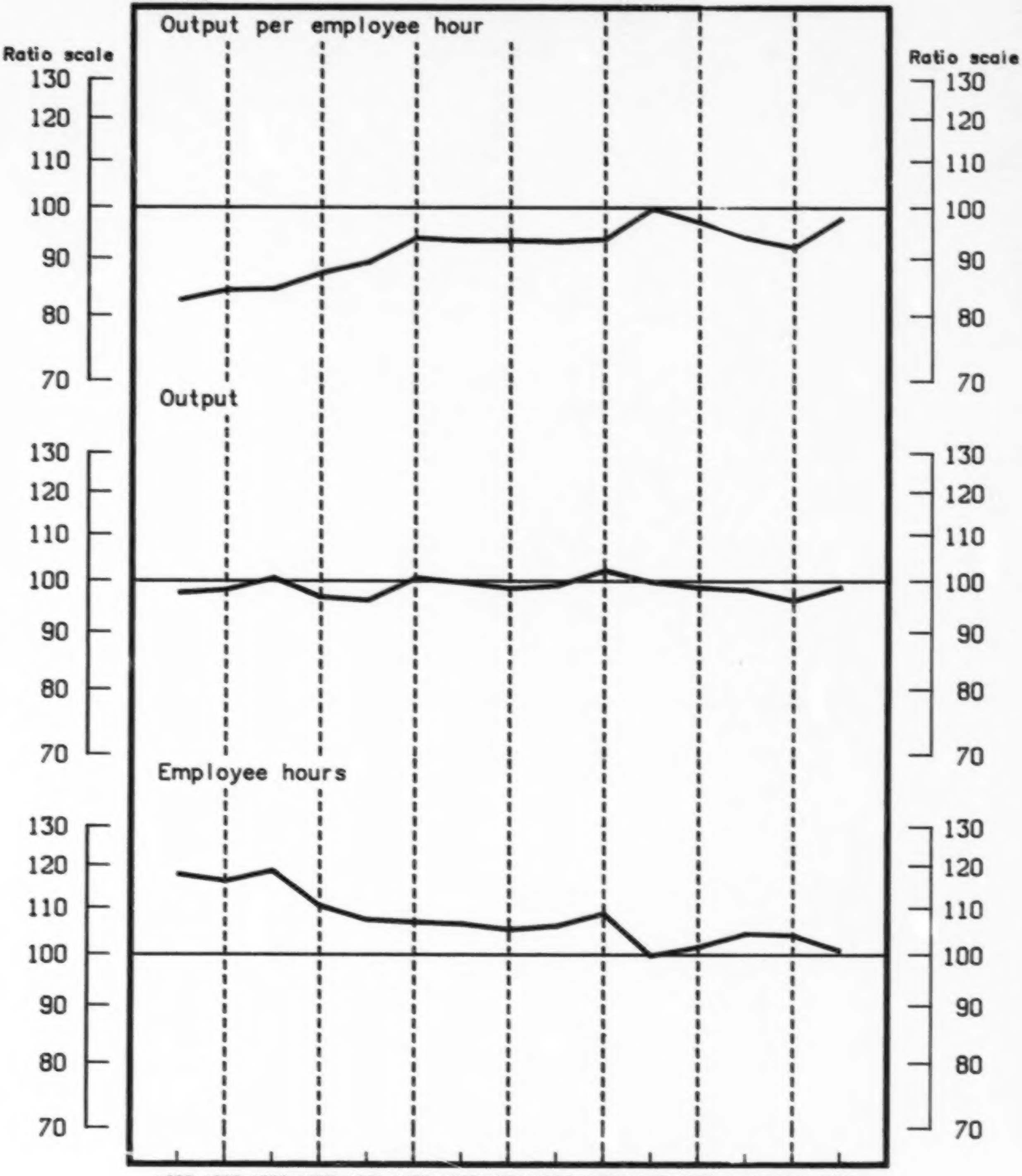
[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 20. Bakery products (SIC 205): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 37. Bakery products (SIC 205): Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	58.4	55.2	63.6	59.1	56.9	62.5
1955	58.9	56.1	63.9	59.6	57.8	62.4
1956	60.0	57.7	63.9	60.2	58.6	62.7
1957	61.9	61.1	63.3	61.9	61.6	62.0
1958	64.0	62.4	66.8	64.8	64.4	65.4
1959	64.0	62.8	66.1	64.7	64.7	64.6
1960	64.3	63.0	66.5	65.5	66.2	64.3
1961	65.4	64.0	67.8	66.2	67.2	64.6
1962	67.2	66.4	68.6	67.9	70.0	65.0
1963	72.3	70.6	75.3	72.6	73.4	71.3
1964	74.6	72.5	78.2	76.5	77.8	74.4
1965	77.5	75.1	81.3	77.5	77.6	76.9
1966	78.4	75.5	83.0	78.8	79.1	78.4
1967	82.8	79.0	89.6	82.2	80.6	84.4
1968	84.5	79.9	92.7	84.8	82.6	87.7
1969	84.7	80.5	92.2	84.5	81.8	88.5
1970	87.5	83.0	95.6	87.7	84.3	92.8
1971	89.5	86.8	94.0	90.2	88.2	93.1
1972	94.1	91.6	98.4	95.4	92.9	98.9
1973	93.6	90.9	98.2	95.1	92.2	99.4
1974	93.6	94.4	92.3	93.0	92.8	93.5
1975	93.4	94.5	92.0	93.1	93.2	92.8
1976	93.9	93.7	94.2	94.0	93.1	95.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.2	98.6	95.2	96.9	98.0	95.2
1979	94.1	93.4	94.9	94.3	93.7	95.3
1980	92.3	90.7	94.9	93.0	91.3	95.6
1981 [2]	98.0	96.7	100.2	98.2	96.7	100.5
Average annual percent change:						
1947-81	2.1	2.4	1.6	2.0	2.2	1.7
1976-81	-.2	-.5	.4	-.1	-.4	.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 38. Bakery products (SIC 205): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

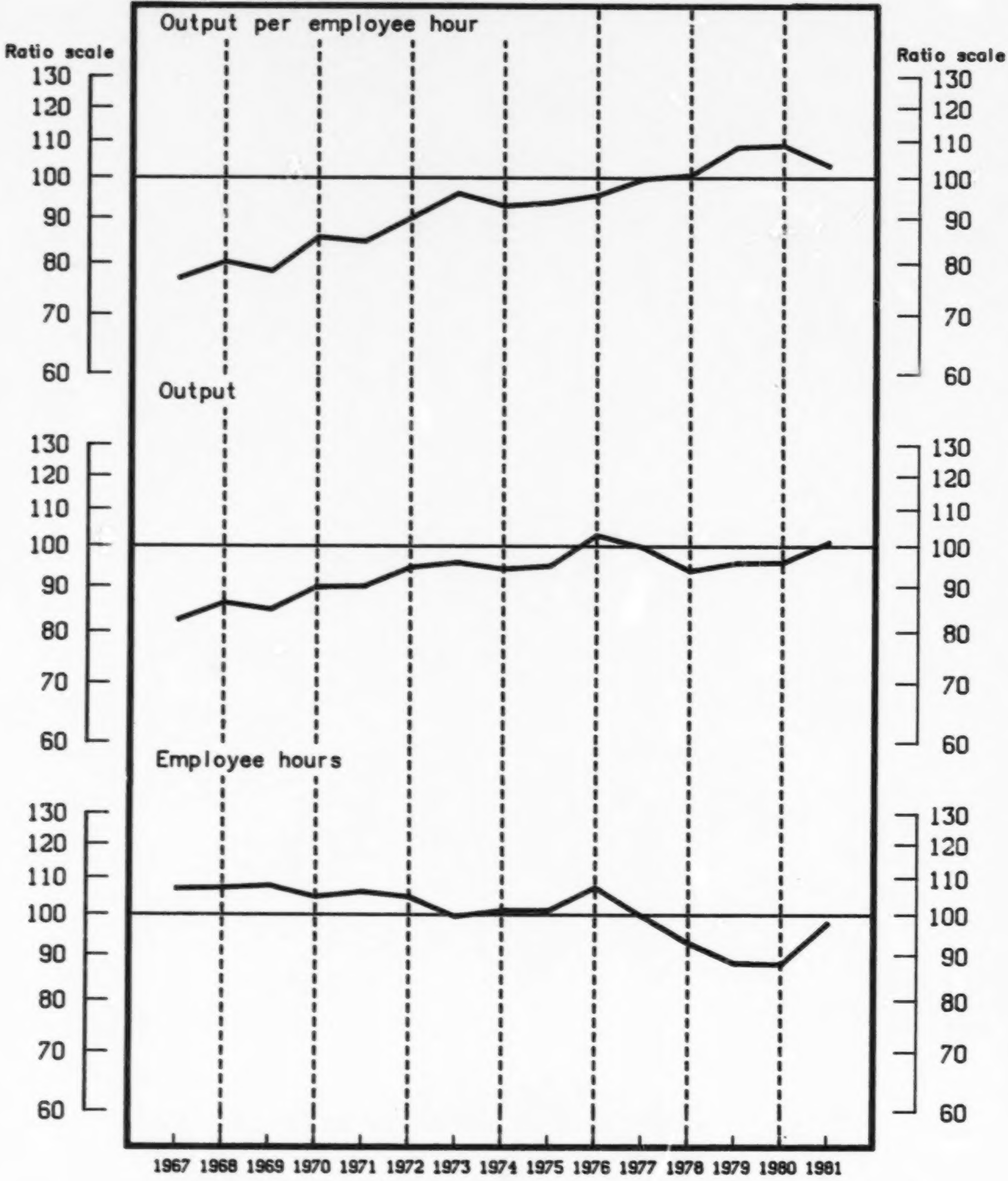
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	77.9	133.5	141.0	122.4	131.8	136.9	124.6
1955	79.7	135.3	142.1	124.8	133.7	138.0	127.8
1956	82.8	137.9	143.4	129.6	137.5	141.3	132.1
1957	85.0	137.4	139.2	134.3	137.4	137.9	137.2
1958	88.3	137.9	141.5	132.2	136.2	137.1	135.1
1959	88.9	139.0	141.8	134.4	137.3	137.3	137.7
1960	89.7	139.4	142.3	134.8	136.9	135.4	139.4
1961	89.0	136.0	139.0	131.2	134.4	132.4	137.7
1962	90.8	135.2	136.8	132.3	133.7	129.7	139.6
1963	91.6	126.7	129.8	121.7	126.2	124.8	128.4
1964	95.2	127.6	131.3	121.7	124.5	122.3	128.0
1965	96.9	125.1	129.0	119.2	125.1	124.8	126.0
1966	97.5	124.4	129.1	117.4	123.7	123.3	124.3
1967	97.8	118.1	123.8	109.2	119.0	121.4	115.9
1968	98.4	116.5	123.1	106.2	116.1	119.1	112.2
1969	100.8	119.0	125.2	109.3	119.3	123.2	113.9
1970	96.9	110.7	116.7	101.4	110.5	114.9	104.4
1971	96.3	107.6	110.9	102.4	106.6	109.2	103.4
1972	100.8	107.1	110.0	102.4	105.7	108.5	101.9
1973	99.9	106.7	109.9	101.7	105.1	108.4	100.5
1974	98.7	105.5	104.6	106.9	106.1	106.4	105.6
1975	99.3	106.3	105.1	107.9	106.7	106.6	107.0
1976	102.4	109.1	109.3	108.7	108.9	110.0	107.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.9	101.8	100.3	103.9	102.1	100.9	103.9
1979	98.4	104.6	105.3	103.7	104.3	105.0	103.3
1980	96.3	104.3	106.2	101.5	103.5	105.5	100.7
1981 [1]	99.0	101.0	102.4	98.8	100.8	102.4	98.5
Average annual percent change:							
1947-81	.9	-1.1	-1.4	-.6	-1.0	-1.2	-.7
1976-81	-.8	-.7	-.3	-1.2	-.7	-.4	-1.2

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 21. Sugar (SIC 2061, 2062, 2063): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 39. Sugar (SIC 2061, 2062, 2063): Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	46.5	43.8	59.9	45.7	43.2	57.8
1955	48.4	45.4	63.6	47.4	44.6	60.9
1956	51.0	47.6	69.3	51.7	48.6	66.7
1957	50.3	46.7	69.6	50.4	47.2	66.9
1958	51.8	48.9	65.4	52.9	50.7	62.8
1959	54.6	51.3	71.2	54.6	51.6	68.2
1960	57.5	54.0	74.9	58.1	55.3	71.0
1961	61.4	57.8	79.3	61.6	58.8	74.3
1962	67.5	63.1	90.3	67.7	64.2	84.0
1963	68.0	63.9	88.4	68.0	64.8	82.1
1964	71.5	67.2	92.5	71.9	68.7	86.3
1965	74.4	69.5	99.9	72.4	68.0	92.9
1966	77.1	73.0	95.6	74.5	72.2	88.5
1967	77.1	72.7	98.8	75.7	72.2	91.4
1968	80.5	75.2	106.9	79.4	75.2	99.0
1969	78.6	73.9	102.7	76.0	72.2	93.9
1970	85.9	80.1	116.1	83.0	78.4	105.0
1971	84.9	79.7	110.7	86.5	82.4	105.1
1972	90.4	86.5	109.5	90.9	87.0	108.6
1973	96.3	93.8	107.0	98.8	96.1	110.3
1974	93.2	89.2	112.8	98.2	94.1	117.2
1975	94.0	93.8	94.4	91.8	90.7	96.8
1976	95.8	95.2	98.5	97.3	96.6	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.0	101.3	99.3	98.4	98.3	98.8
1979	108.6	109.2	106.1	107.3	107.5	106.3
1980	109.1	108.5	111.6	107.0	105.7	112.5
1981 [2]	103.4	99.0	127.9	105.7	101.0	128.4
Average annual percent change:						
1947-81	3.6	3.8	2.3	3.5	3.8	2.4
1976-81	2.1	1.5	5.0	2.0	1.4	4.9

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service and Statistical Reporting Service, U.S. Department of Agriculture; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 40. Sugar (SIC 2061, 2062, 2063): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	56.2	120.8	128.3	93.8	122.9	130.0	97.2
1955	56.0	115.6	123.3	88.1	118.2	125.5	91.9
1956	58.7	115.1	123.4	84.7	113.5	120.7	88.0
1957	58.1	115.5	124.4	83.5	115.2	123.1	86.9
1958	61.5	118.7	125.7	94.1	116.3	121.4	98.0
1959	64.6	118.3	126.0	90.7	118.4	125.2	94.7
1960	66.4	115.4	122.9	88.7	114.2	120.0	93.5
1961	70.2	114.3	121.4	88.5	113.9	119.4	94.5
1962	73.4	108.7	116.3	81.3	108.4	114.4	87.4
1963	77.0	113.2	120.5	87.1	113.3	118.9	93.8
1964	83.1	116.2	123.7	89.8	115.6	120.9	96.3
1965	80.6	108.3	116.0	80.7	111.4	118.5	86.8
1966	81.2	105.3	111.2	84.9	109.0	112.5	91.8
1967	82.7	107.2	113.8	83.7	109.3	114.6	90.5
1968	86.5	107.5	115.0	80.9	109.0	115.1	87.4
1969	85.0	108.1	115.0	82.8	111.8	117.8	90.5
1970	90.2	105.0	112.6	77.7	108.7	115.1	85.9
1971	90.3	106.4	113.3	81.6	104.4	109.6	85.9
1972	94.9	105.0	109.7	86.7	104.4	109.1	87.4
1973	96.1	99.8	102.4	89.8	97.3	100.0	87.1
1974	94.5	101.4	106.0	83.8	96.2	100.4	80.6
1975	95.3	101.4	101.6	100.9	103.8	105.1	98.4
1976	103.2	107.7	108.4	104.8	106.1	106.8	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	94.1	93.2	92.9	94.8	95.6	95.7	95.2
1979	96.0	88.4	87.9	90.5	89.5	89.3	90.3
1980	96.2	88.2	88.7	86.2	89.9	91.0	85.5
1981 [1]	101.4	98.1	102.4	79.3	95.9	100.4	79.0
Average annual percent change:							
1947-81	2.4	-1.1	-1.4	.1	-1.1	-1.3	(2)
1976-81	-.5	-2.5	-2.0	-5.2	-2.5	-1.9	-5.2

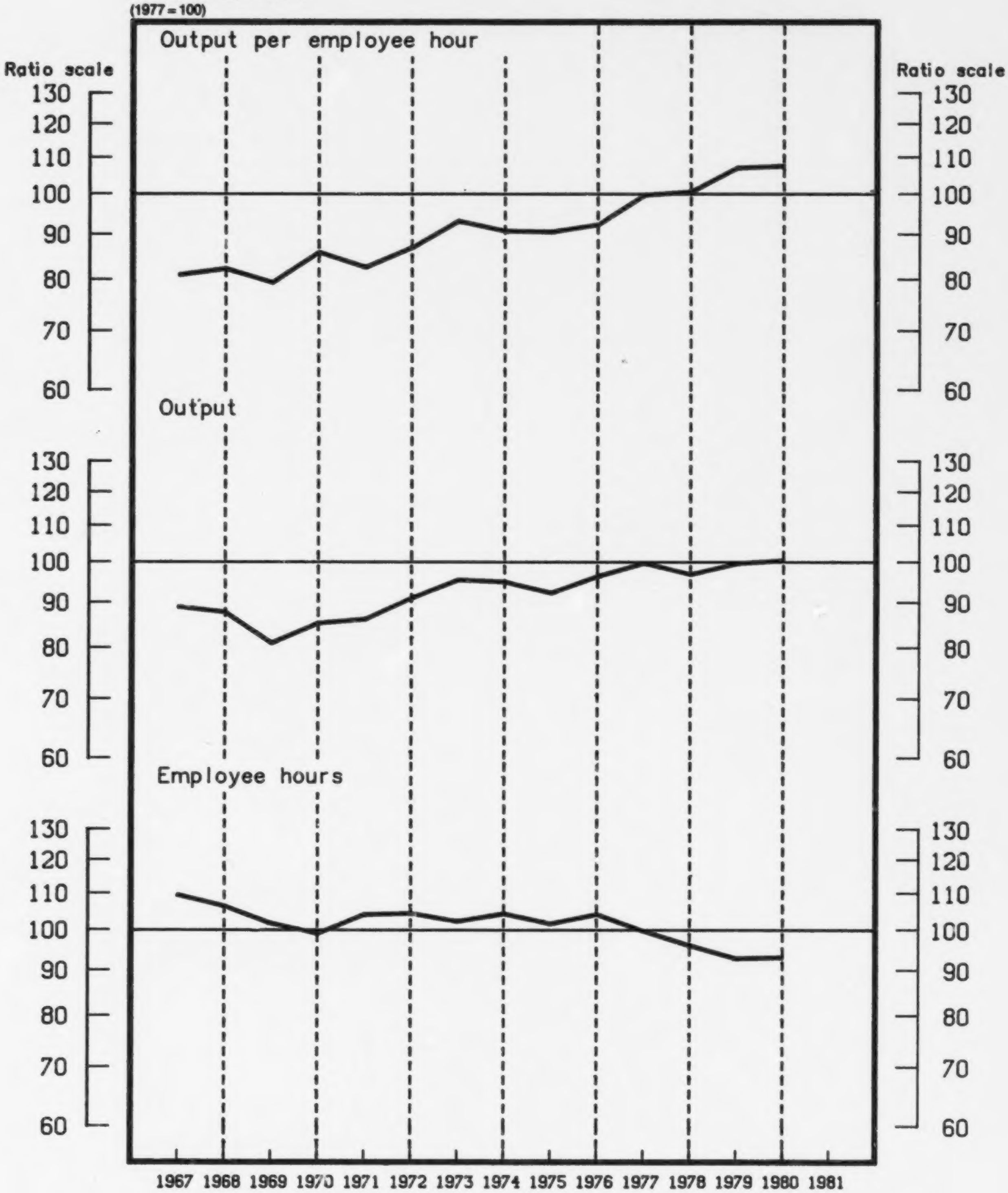
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service and Statistical Reporting Service, U.S. Department of Agriculture; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 22. Raw and refined cane sugar (SIC 2061, 2062): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 41. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output per employee hour and output per employee, 1958–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	51.9	48.6	64.7	51.9	49.7	59.5
1959	55.5	51.5	72.3	54.5	51.2	66.5
1960	57.2	53.2	73.1	56.6	53.8	66.5
1961	64.3	60.2	81.2	64.1	61.5	72.9
1962	71.1	65.9	91.9	71.3	66.1	82.0
1963	69.8	65.4	86.7	70.4	66.2	77.2
1964	69.6	65.8	83.6	69.9	66.2	74.8
1965	76.9	71.7	97.7	76.3	73.0	87.0
1966	81.2	75.9	102.0	80.9	76.0	90.5
1967	81.2	77.1	96.5	83.2	80.2	93.1
1968	82.5	77.9	99.5	84.7	81.3	96.1
1969	79.6	77.3	86.9	79.0	77.6	82.9
1970	86.1	83.4	94.6	86.5	85.5	89.2
1971	82.8	80.1	91.0	86.4	85.0	90.2
1972	87.2	86.1	90.1	91.8	91.3	93.3
1973	93.4	90.9	101.4	98.0	95.7	104.5
1974	91.0	90.4	92.7	96.3	96.6	95.2
1975	90.8	91.6	88.9	91.5	91.8	90.5
1976	92.5	92.4	93.2	95.5	95.1	96.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.8	100.5	101.7	100.9	100.8	101.5
1979	107.3	104.6	117.3	108.2	105.4	117.4
1980 [2]	107.8	104.2	121.3	109.7	106.2	121.3
Average annual percent change:						
1958-80	2.9	3.3	1.7	3.1	3.3	2.4
1976-80	3.8	2.9	7.1	3.6	2.8	6.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service and Statistical Reporting Service, U.S. Department of Agriculture, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 42. Raw and refined cane sugar (SIC 2061, 2062): Indexes of output, employee hours, and employees, 1958–80

(1977 = 100)

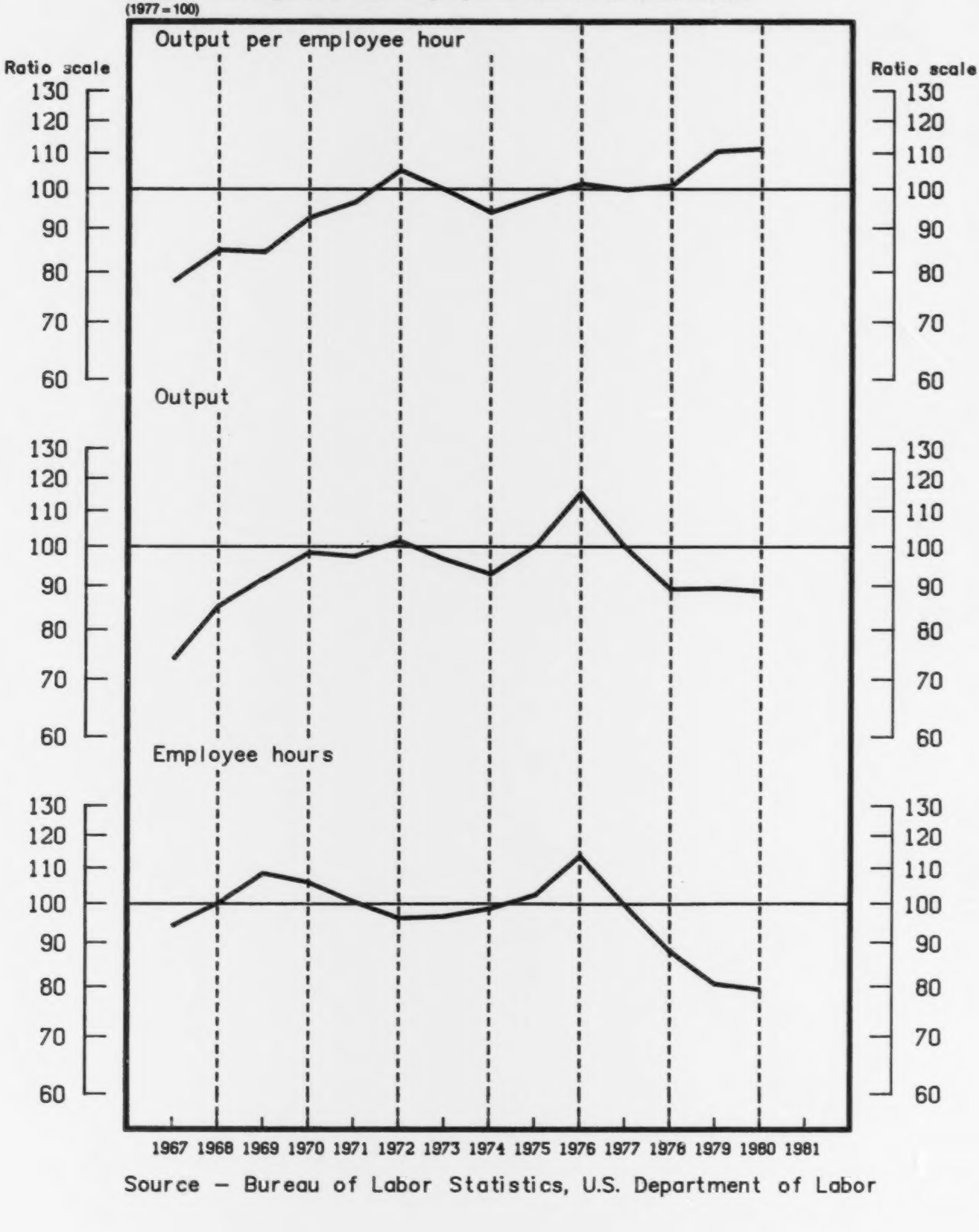
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	64.6	124.5	132.9	99.9	124.5	130.1	108.6
1959	69.0	124.3	134.1	95.4	126.7	134.8	103.7
1960	68.9	120.5	129.5	94.3	121.7	128.0	103.6
1961	74.9	116.4	124.5	92.2	116.8	121.8	102.8
1962	77.6	109.1	117.8	84.4	108.9	113.9	94.6
1963	80.5	115.4	123.1	92.9	114.4	118.0	104.3
1964	79.4	114.1	120.7	95.0	113.6	116.4	106.1
1965	81.0	105.3	113.0	82.9	106.1	110.9	93.1
1966	84.9	104.6	111.9	83.2	104.9	108.9	93.8
1967	89.2	109.8	115.7	92.4	107.2	111.2	95.8
1968	88.0	106.7	113.0	88.4	103.9	108.2	91.6
1969	81.2	102.0	105.0	93.4	102.8	104.6	97.9
1970	85.5	99.3	102.5	90.4	98.9	100.0	95.8
1971	86.4	104.4	107.8	94.9	100.0	101.6	95.8
1972	91.3	104.7	106.0	101.3	99.5	100.0	97.9
1973	95.7	102.5	105.3	94.4	97.7	100.0	91.6
1974	95.2	104.6	105.3	102.7	98.9	98.6	100.0
1975	92.5	101.9	101.0	104.1	101.1	100.8	102.2
1976	96.6	104.4	104.6	103.7	101.1	101.6	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.1	96.3	96.6	95.5	96.2	96.3	95.7
1979	99.9	93.1	95.5	85.2	92.3	94.8	85.1
1980 [1]	100.7	93.4	96.6	83.0	91.8	94.8	83.0
Average annual percent change:							
1958-80	1.8	-1.1	-1.4	.1	-1.2	-1.4	-.6
1976-80	.8	-2.9	-2.0	-5.9	-2.7	-1.9	-5.2

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service and Statistical Reporting Service, U.S. Department of Agriculture, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 23. Beet sugar (SIC 2063): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 43. Beet sugar (SIC 2063): Indexes of output per employee hour and output per employee, 1958–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	60.8	59.1	73.7	64.2	63.7	67.8
1959	62.1	60.7	74.3	63.9	63.3	68.3
1960	68.7	66.6	87.0	71.7	70.8	79.1
1961	65.9	64.1	80.8	66.1	65.3	72.5
1962	72.2	69.9	92.1	71.4	70.0	81.9
1963	76.0	73.1	102.2	74.1	72.0	91.0
1964	86.6	83.3	117.2	87.0	84.8	104.8
1965	82.1	79.6	105.1	76.5	74.5	93.6
1966	82.0	81.7	83.0	74.8	74.9	73.6
1967	78.4	77.9	82.4	73.5	72.7	79.4
1968	85.2	83.9	94.9	81.3	79.8	91.5
1969	84.7	81.7	111.4	80.8	77.9	106.2
1970	92.9	89.8	120.7	87.2	84.2	113.8
1971	96.8	93.0	134.4	97.7	93.9	133.1
1972	105.5	102.3	134.1	100.9	96.9	138.7
1973	100.0	96.9	128.0	99.5	95.9	132.0
1974	94.2	91.9	113.5	90.8	87.8	116.5
1975	98.1	97.0	105.9	92.6	90.6	107.8
1976	101.7	100.8	107.1	101.8	100.7	108.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	101.9	96.3	94.5	94.3	95.9
1979	110.9	115.7	83.8	105.4	109.7	84.1
1980 [2]	111.7	114.2	95.8	102.5	103.6	95.4
Average annual percent change:						
1958-80	2.6	2.8	1.1	2.3	2.3	1.8
1976-80	3.0	4.0	-3.9	.7	1.5	-4.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service, U.S. Department of Agriculture, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 44. Beet sugar (SIC 2063): Indexes of output, employee hours, and employees, 1958–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	58.2	95.8	98.4	79.0	90.6	91.3	85.9
1959	59.1	95.1	97.4	79.5	92.5	93.4	86.5
1960	64.5	93.9	96.8	74.1	89.9	91.1	81.5
1961	64.2	97.4	100.2	79.5	97.1	98.3	88.6
1962	68.5	94.9	98.0	74.4	96.0	97.9	83.6
1963	73.4	96.6	100.4	71.8	99.1	101.9	80.7
1964	92.1	106.4	110.6	78.6	105.9	108.6	87.9
1965	82.5	100.5	103.7	78.5	107.9	110.8	88.1
1966	77.4	94.4	94.7	93.3	103.5	103.3	105.2
1967	74.2	94.6	95.3	90.1	100.9	102.0	93.4
1968	85.5	100.4	101.9	90.1	105.2	107.1	93.4
1969	92.1	108.8	112.7	82.7	114.0	118.2	86.7
1970	98.7	106.2	109.9	81.8	113.2	117.2	86.7
1971	97.7	100.9	105.1	72.7	100.0	104.1	73.4
1972	101.8	96.5	99.5	75.9	100.9	105.1	73.4
1973	96.9	96.9	100.0	75.7	97.4	101.0	73.4
1974	93.2	98.9	101.4	82.1	102.6	106.1	80.0
1975	100.7	102.6	103.8	95.1	108.8	111.1	93.4
1976	116.0	114.1	115.1	108.3	114.0	115.2	106.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	89.5	88.4	87.8	92.9	94.7	94.9	93.3
1979	89.7	80.9	77.5	107.1	85.1	81.8	106.7
1980 [1]	89.0	79.7	77.9	92.9	86.8	85.9	93.3
Average annual percent change:							
1958-80	2.3	-.3	-.5	1.2	.1	[2]	.5
1976-80	-6.2	-8.9	-9.8	-2.4	-6.8	-7.6	-2.0

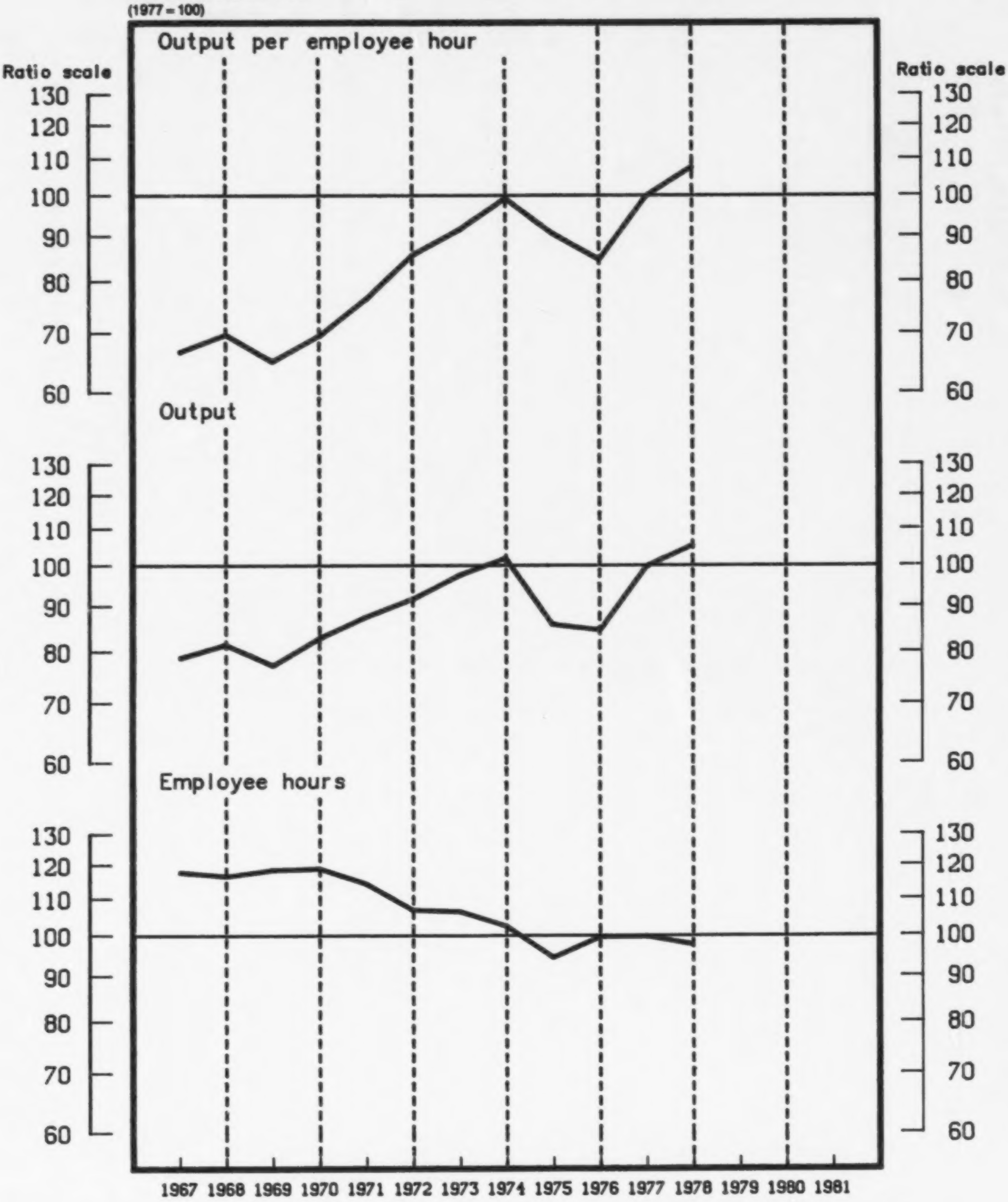
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Agricultural Marketing Service, U.S. Department of Agriculture, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 24. Candy and other confectionery products (SIC 2065): Output per hour and related data, 1967-78
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 45. Candy and other confectionery products (SIC 2065): Indexes of output per employee hour and output per employee, 1954–78

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	41.3	40.5	44.8	42.7	41.9	46.8
1955	42.6	42.9	41.2	43.8	44.1	42.9
1956	43.0	44.0	39.0	44.7	45.8	40.7
1957	46.8	47.8	42.9	48.1	48.9	44.7
1958	48.9	48.6	49.7	49.9	49.6	51.8
1959	50.0	50.0	49.8	52.2	52.2	51.8
1960	52.3	52.4	51.6	54.5	54.8	53.1
1961	52.2	52.0	53.0	54.4	54.6	53.8
1962	53.2	53.1	53.8	55.5	55.9	54.2
1963	58.8	57.3	66.0	60.0	58.7	66.4
1964	59.9	58.3	67.6	60.9	59.4	68.4
1965	62.4	60.3	73.9	63.8	61.7	74.4
1966	64.9	62.9	75.1	65.4	63.5	75.3
1967	66.8	64.3	80.3	67.4	64.9	80.4
1968	69.9	67.5	82.4	70.4	68.8	78.2
1969	65.2	63.2	75.1	66.2	64.9	72.1
1970	69.7	68.7	73.9	70.1	69.7	72.0
1971	76.6	76.5	76.7	79.5	80.5	76.1
1972	85.9	85.5	87.5	87.9	87.9	88.0
1973	91.7	95.4	78.2	93.4	97.6	79.1
1974	99.5	102.1	89.4	97.3	99.0	90.7
1975	90.8	94.6	77.3	87.0	89.4	78.3
1976	84.9	86.7	77.5	83.3	84.6	78.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	105.7	118.4	106.8	106.8	118.7
Average annual percent change:						
1947-78	3.7	3.8	3.4	3.5	3.6	3.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Competitive Assessment and Business Policy, and the Bureau of the Census, U.S. Department of Commerce. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 46. Candy and other confectionery products (SIC 2065): Indexes of output, employee hours, and employees, 1954–78

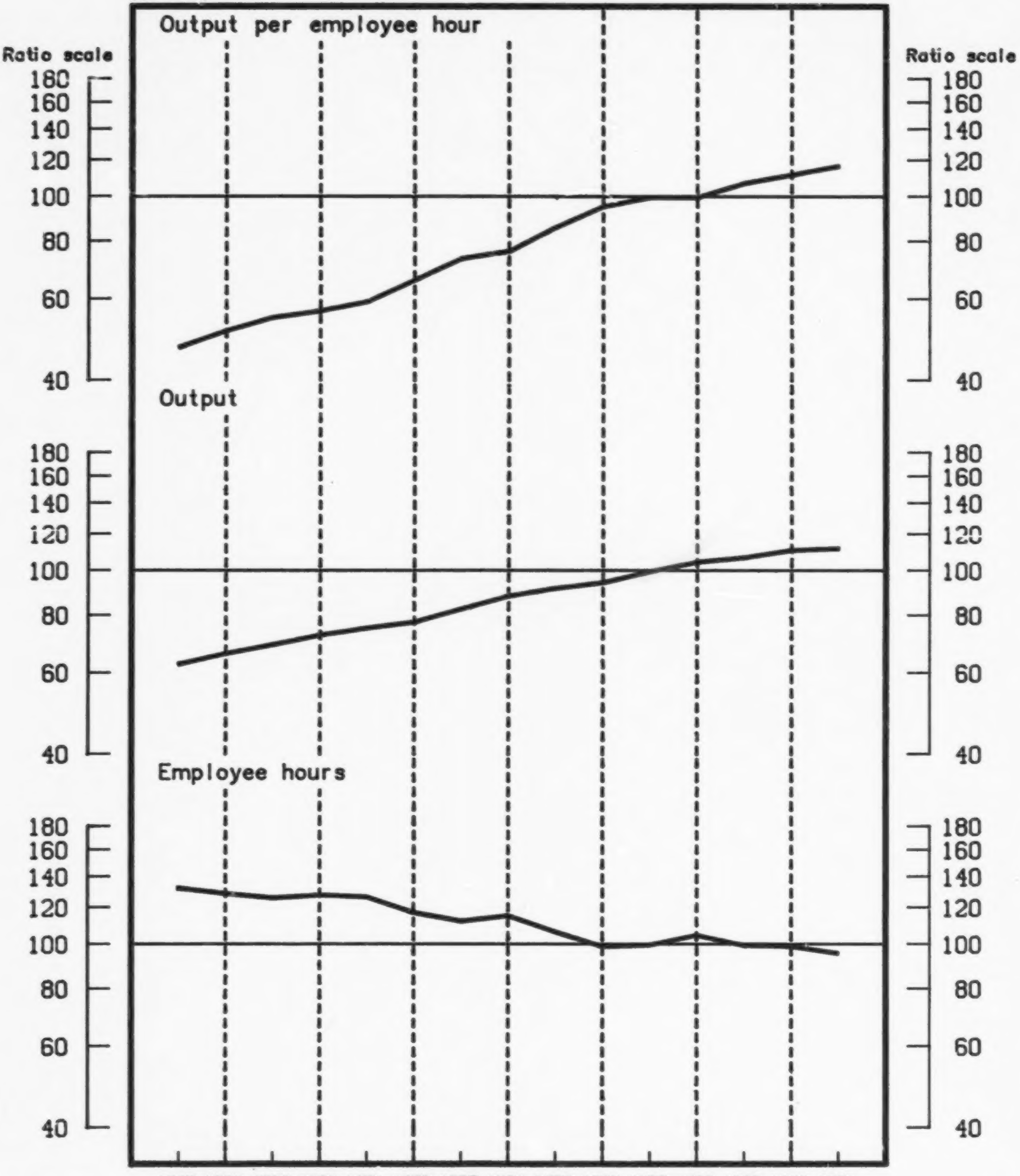
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.5	119.8	122.1	110.5	115.9	118.2	105.8
1955	51.8	121.6	120.7	125.6	118.3	117.5	120.7
1956	53.5	124.3	121.5	137.2	119.6	116.9	131.4
1957	55.8	119.2	116.8	130.1	116.0	114.0	124.8
1958	57.3	117.2	117.8	115.2	114.8	115.6	110.7
1959	58.2	116.3	116.3	116.8	111.6	111.4	112.3
1960	60.6	115.8	115.6	117.5	111.2	110.6	114.1
1961	61.4	117.6	118.0	115.9	112.9	112.5	114.2
1962	62.9	118.2	118.5	116.9	113.3	112.6	116.0
1963	65.9	112.0	115.0	99.8	109.8	112.2	99.2
1964	68.9	115.0	118.2	101.9	113.1	115.9	100.8
1965	71.8	115.0	119.1	97.1	112.5	116.3	96.5
1966	75.2	115.8	119.5	100.1	114.9	118.5	99.9
1967	78.9	118.1	122.7	98.3	117.1	121.5	98.1
1968	81.7	116.9	121.0	99.2	116.0	118.7	104.5
1969	77.4	118.8	122.5	103.0	117.0	119.2	107.3
1970	83.1	119.2	120.9	112.4	118.5	119.2	115.4
1971	87.8	114.6	114.7	114.5	110.4	109.1	115.4
1972	92.0	107.1	107.6	105.2	104.7	104.7	104.5
1973	97.8	106.6	102.5	125.0	104.7	100.2	123.6
1974	102.2	102.7	100.1	114.3	105.0	103.2	112.7
1975	86.0	94.7	90.9	111.2	98.8	96.2	109.9
1976	84.8	99.9	97.8	109.4	101.8	100.2	108.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	97.9	99.9	89.2	97.1	98.9	89.0
Average annual percent change:							
1947-78	2.7	-1.0	-1.0	-.7	-.7	-.8	-.4

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Competitive Assessment and Business Policy, and the Bureau of the Census, U.S. Department of Commerce. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 25. Malt beverages (SIC 2082): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 47. Malt beverages (SIC 2082): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	23.5	25.3	19.7	23.7	25.4	20.4
1955	24.4	26.1	21.0	24.5	26.0	21.6
1956	24.9	26.8	21.1	25.1	26.7	21.8
1957	25.7	27.8	21.4	25.6	27.4	22.1
1958	28.4	30.5	24.1	28.0	29.6	24.8
1959	29.7	31.5	25.8	29.4	30.7	26.6
1960	30.9	32.6	27.4	30.2	31.3	27.9
1961	32.5	34.2	28.6	31.6	33.0	28.7
1962	34.1	35.7	30.5	33.5	34.9	30.5
1963	37.4	39.1	33.8	36.8	38.1	33.7
1964	40.2	42.1	35.9	39.4	41.1	36.0
1965	42.3	44.5	37.3	41.7	43.9	37.2
1966	44.5	47.1	38.7	44.0	46.8	38.5
1967	47.4	50.2	41.7	46.5	49.0	41.4
1968	51.4	53.1	47.5	49.7	52.1	45.1
1969	54.9	57.2	49.9	53.3	56.0	47.9
1970	56.7	59.9	50.0	55.9	59.6	48.6
1971	59.4	64.4	49.6	58.2	63.1	49.1
1972	66.1	71.0	56.3	66.4	71.5	56.6
1973	73.7	75.6	69.1	74.3	76.4	69.9
1974	76.4	77.9	72.7	77.6	79.6	73.6
1975	86.1	88.0	82.2	86.0	87.3	83.0
1976	95.5	97.5	90.8	97.5	100.1	91.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.0	99.8	100.3	101.3	101.6	100.2
1979	107.4	106.7	109.5	107.4	106.6	109.7
1980	112.1	112.1	112.1	113.2	113.4	113.0
1981 [2]	117.0	119.9	110.3	116.1	118.7	110.4
Average annual percent change:						
1947-81	5.8	5.7	6.1	5.7	5.6	6.0
1976-81	4.2	4.2	4.1	3.8	3.7	4.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 48. Malt beverages (SIC 2082): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	44.0	187.6	173.7	223.1	185.4	173.0	215.7
1955	45.0	184.3	172.7	214.5	183.3	173.0	208.2
1956	45.4	182.5	169.6	215.6	181.0	169.8	208.7
1957	45.2	176.2	162.7	211.0	176.4	165.0	204.4
1958	45.7	161.1	150.0	189.6	163.0	154.4	184.0
1959	47.4	159.5	150.4	183.4	161.2	154.2	178.0
1960	48.0	155.1	147.2	175.4	158.7	153.3	172.0
1961	49.0	151.0	143.2	171.5	154.9	148.6	170.5
1962	50.2	147.1	140.6	164.5	150.0	144.0	164.6
1963	52.3	139.7	133.9	154.7	142.3	137.3	155.0
1964	55.5	138.2	131.9	154.7	140.7	135.2	154.3
1965	57.3	135.6	128.8	153.8	137.4	130.5	154.1
1966	60.5	136.1	128.4	156.2	137.5	129.4	157.1
1967	63.0	132.8	125.6	151.1	135.5	128.5	152.0
1968	66.4	129.2	125.1	139.7	133.5	127.5	147.3
1969	69.4	126.4	121.4	139.1	130.2	124.0	145.0
1970	72.6	128.3	121.5	145.5	130.2	122.1	149.7
1971	75.4	127.0	117.1	152.1	129.5	119.5	153.5
1972	77.7	117.5	109.4	138.1	117.1	108.6	137.2
1973	83.0	112.6	109.8	120.1	111.7	108.6	118.7
1974	86.5	115.8	113.6	121.8	114.0	111.2	120.2
1975	92.0	106.8	104.6	111.9	107.0	105.4	110.9
1976	94.6	99.1	97.0	104.2	97.0	94.5	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	104.9	105.1	104.6	103.6	103.2	104.7
1979	107.2	99.8	100.5	97.9	99.8	100.6	97.7
1980	111.2	99.2	99.2	99.2	98.2	98.1	98.4
1981 [1]	112.2	95.9	93.6	101.7	96.6	94.5	101.6
Average annual percent change:							
1947-81	3.3	-2.4	-2.2	-2.6	-2.2	-2.1	-2.5
1976-81	3.5	-.7	-.7	-.6	-.3	-.2	-.6

[1] Preliminary.

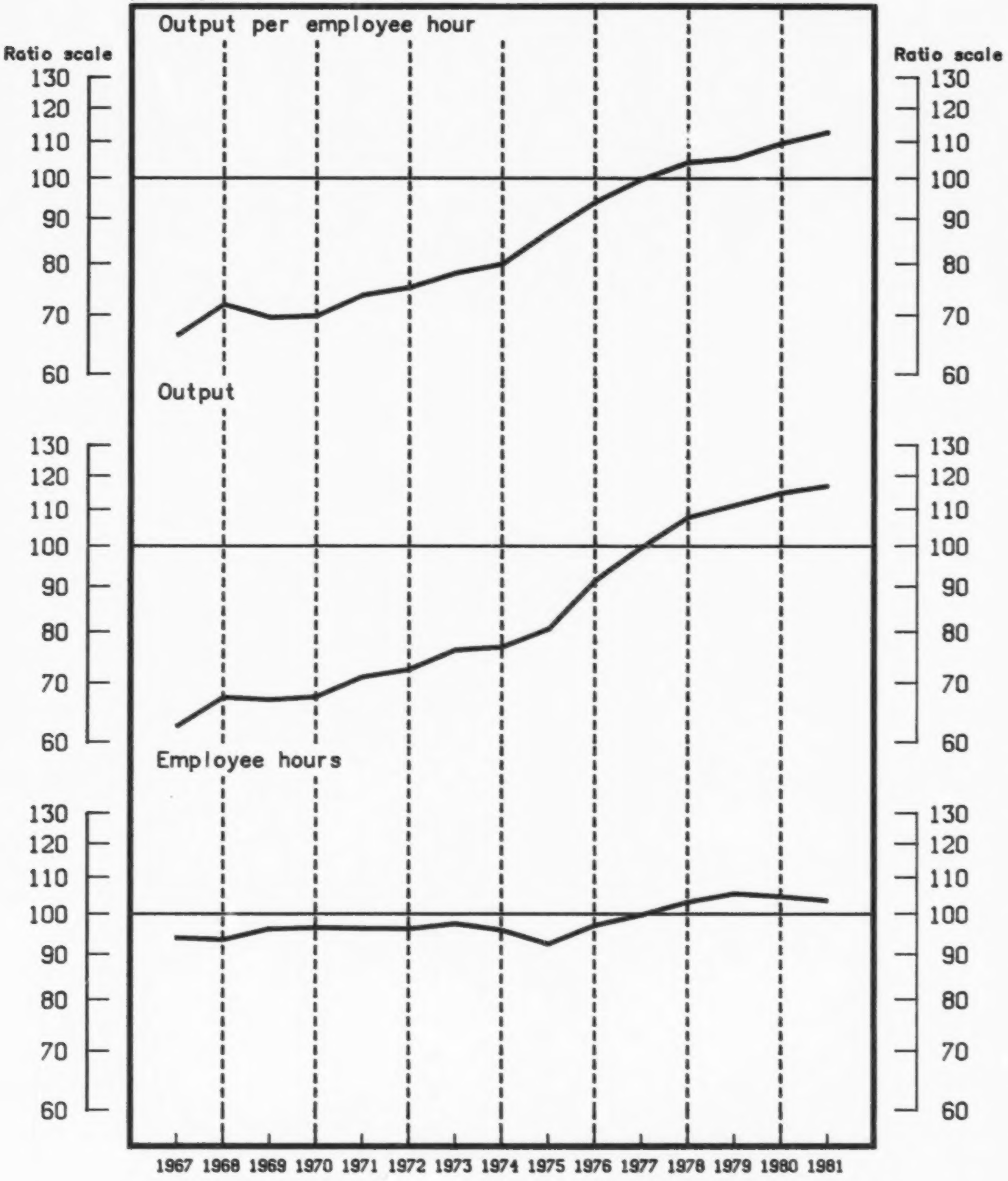
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 26. Bottled and canned soft drinks (SIC 2086): Output per hour and related data, 1967-81

(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 49. Bottled and canned soft drinks (SIC 2086): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	57.7	50.4	62.9	57.5	52.7	60.6
1959	60.4	53.1	65.5	60.9	57.2	63.1
1960	58.4	51.7	63.0	58.2	55.1	60.1
1961	60.7	54.2	65.2	59.8	57.0	61.5
1962	65.1	58.5	69.6	63.4	61.1	64.8
1963	67.1	59.2	72.6	65.9	63.2	67.5
1964	67.3	60.1	72.2	65.8	63.7	67.1
1965	67.8	60.9	72.5	66.3	64.5	67.4
1966	68.2	59.4	74.5	66.9	63.1	69.3
1967	66.6	58.5	72.2	64.8	61.1	67.1
1968	72.1	64.3	77.5	69.6	65.6	72.1
1969	69.7	64.0	73.5	67.7	64.6	69.5
1970	70.0	65.5	72.9	68.6	66.2	70.0
1971	73.9	69.7	76.4	73.2	70.6	74.8
1972	75.4	72.9	76.9	75.7	73.7	76.8
1973	78.3	76.7	79.3	78.7	77.1	79.6
1974	80.2	78.5	81.2	80.3	77.9	81.8
1975	87.2	86.1	87.7	87.1	85.2	88.1
1976	94.2	93.5	94.6	94.3	93.5	94.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	105.3	104.1	105.0	106.3	104.1
1979	105.6	109.1	103.6	105.9	110.2	103.6
1980	109.8	116.4	106.4	110.5	118.4	106.4
1981 [2]	113.0	123.3	107.9	113.3	124.3	107.9
Average annual percent change:						
1958-81	2.9	3.8	2.3	3.0	3.5	2.7
1976-81	3.5	5.5	2.4	3.6	5.8	2.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Sales Survey and Statistical Profile of the Soft Drink Industry, National Soft Drink Association; and the Bureau cf the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Table 50. Bottled and canned soft drinks (SIC 2086): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

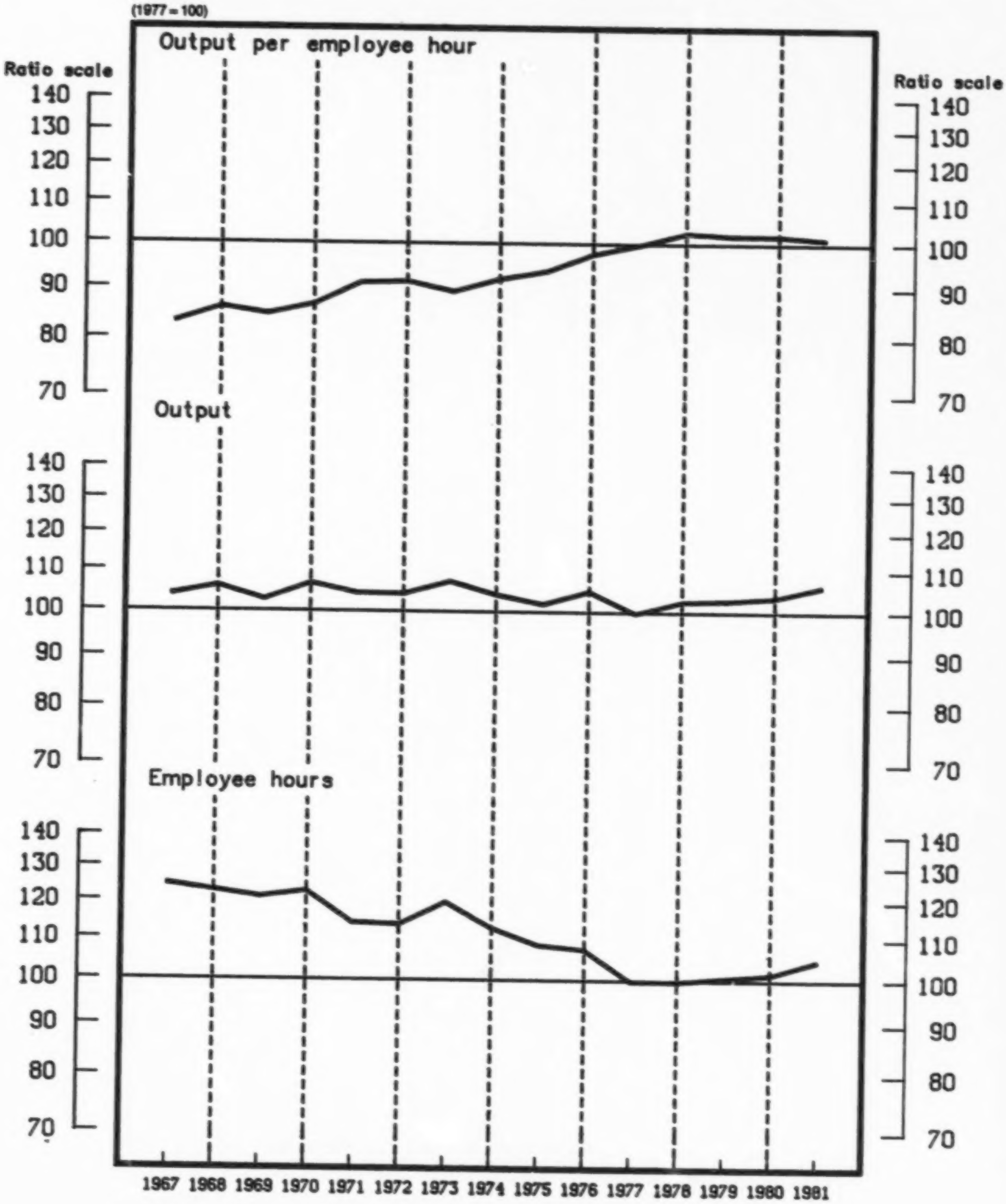
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	43.0	74.5	85.3	68.4	74.8	81.6	71.0
1959	46.6	77.1	87.8	71.1	76.5	81.4	73.8
1960	46.0	78.8	89.0	73.0	79.1	83.5	76.6
1961	47.5	78.2	87.7	72.8	79.4	83.3	77.2
1962	51.3	78.8	87.7	73.7	80.9	83.9	79.2
1963	54.6	81.4	92.3	75.2	82.9	86.4	80.9
1964	57.0	84.7	94.8	79.0	86.6	89.5	84.9
1965	59.2	87.3	97.2	81.7	89.3	91.8	87.8
1966	63.1	92.5	106.3	84.7	94.3	100.0	91.0
1967	62.7	94.2	107.2	86.9	96.8	102.7	93.4
1968	67.6	93.7	105.2	87.2	97.1	103.1	93.7
1969	67.2	96.4	105.0	91.4	99.3	104.0	96.7
1970	67.7	96.7	103.3	92.9	98.7	102.3	96.7
1971	71.3	96.5	102.3	93.3	97.4	101.0	95.3
1972	72.7	96.4	99.7	94.5	96.1	98.7	94.6
1973	76.5	97.7	99.7	96.5	97.2	99.2	96.1
1974	77.1	96.1	98.2	94.9	96.0	99.0	94.3
1975	80.8	92.7	93.8	92.1	92.8	94.8	91.7
1976	91.7	97.3	98.1	96.9	97.2	98.1	96.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.1	103.4	102.7	103.8	103.0	101.7	103.8
1979	111.6	105.7	102.3	107.7	105.4	101.3	107.7
1980	115.2	104.9	99.0	108.3	104.3	97.3	108.3
1981 [1]	117.3	103.8	95.1	108.7	103.5	94.4	106.7
Average annual percent change:							
1958-81	4.4	1.4	.5	2.0	1.3	.8	1.6
1976-81	4.9	1.4	-.5	2.5	1.3	-.8	2.5

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Sales Survey and Statistical Profile of the Soft Drink Industry, National Soft Drink Association; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 27. All tobacco products (SIC 2111, 2121, 2131): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 51. All tobacco products (SIC 2111, 2121, 2131): Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	52.1	48.0	100.1	54.4	49.6	112.8
1955	52.0	47.9	100.2	54.6	49.8	112.5
1956	55.2	51.0	105.6	57.8	52.8	118.7
1957	57.8	53.4	108.4	60.6	55.5	121.7
1958	62.1	57.9	105.5	65.9	60.9	118.4
1959	65.3	61.3	102.3	68.5	64.8	114.6
1960	69.7	65.6	108.0	73.9	69.0	121.4
1961	72.1	68.4	104.4	77.1	72.5	117.4
1962	74.3	70.9	101.7	79.6	75.3	115.2
1963	78.4	74.4	112.3	84.0	78.9	126.8
1964	80.2	75.5	125.1	87.5	81.6	142.0
1965	83.4	79.2	119.5	87.2	81.9	135.1
1966	83.2	79.0	119.0	88.0	82.6	134.1
1967	83.3	79.6	112.3	87.8	82.9	126.5
1968	86.2	82.3	116.8	88.3	83.4	129.0
1969	84.8	81.6	108.8	87.6	83.5	119.5
1970	86.8	83.1	116.4	91.8	87.2	128.0
1971	91.3	88.0	117.3	95.5	91.0	128.9
1972	91.6	88.9	110.7	94.9	91.1	121.3
1973	89.5	87.2	104.4	93.4	90.3	114.7
1974	92.2	90.4	103.7	93.6	90.9	111.3
1975	93.9	93.2	97.2	95.8	94.6	102.1
1976	97.8	96.7	103.3	100.5	99.3	106.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	102.5	104.4	105.8	106.1	104.2
1979	102.2	103.6	94.5	105.2	107.4	94.7
1980	102.2	105.2	87.9	105.8	109.9	88.3
1981 [2]	101.4	104.0	88.4	106.9	111.3	88.5
Average annual percent change:						
1947-81	2.7	3.0	.2	2.6	3.0	-.2
1976-81	.7	1.5	-3.6	1.4	2.5	-3.9

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 52. All tobacco products (SIC 2111, 2121, 2131): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	82.9	158.1	172.7	82.8	152.4	167.1	73.5
1955	83.7	161.1	174.8	83.5	153.3	168.0	74.4
1956	84.3	152.6	165.2	79.8	145.8	159.8	71.0
1957	86.9	150.4	162.7	80.2	143.4	156.7	71.4
1958	91.9	147.9	158.6	87.1	139.4	150.9	77.6
1959	97.3	149.1	158.7	95.1	139.9	150.2	84.9
1960	99.7	143.0	152.0	92.3	134.9	144.5	82.1
1961	99.2	137.5	145.0	95.0	128.6	136.9	84.5
1962	99.4	133.7	140.1	97.7	124.8	132.0	86.3
1963	101.6	129.6	136.5	90.5	121.0	129.7	80.1
1964	110.3	137.5	146.1	88.2	126.1	135.1	77.7
1965	107.4	128.7	135.6	89.9	123.1	131.2	79.5
1966	104.6	125.7	132.4	87.9	118.9	126.6	78.0
1967	104.1	125.0	130.7	92.7	118.6	125.5	82.3
1968	106.2	123.2	129.0	90.9	120.3	127.4	82.3
1969	102.9	121.4	126.1	94.6	117.4	123.3	86.1
1970	106.9	123.1	128.6	91.6	116.4	122.6	83.5
1971	104.5	114.4	118.8	89.1	109.4	114.8	81.1
1972	104.4	114.0	117.5	94.3	110.0	114.6	86.1
1973	107.5	120.1	123.3	103.0	115.1	119.1	93.7
1974	104.3	113.1	115.4	100.6	111.4	114.8	93.7
1975	102.1	108.7	109.5	105.0	106.6	107.9	100.0
1976	105.2	107.6	108.8	101.8	104.7	105.9	98.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	100.0	100.3	98.5	97.2	96.9	98.7
1979	103.1	100.9	99.5	109.1	98.0	96.0	108.9
1980	103.9	101.7	98.8	118.2	98.2	94.5	117.7
1981 [1]	106.5	105.0	102.4	120.5	99.6	95.7	120.3
Average annual percent change:							
1947-81	.9	-1.7	-2.0	.8	-1.6	-2.0	1.2
1976-81	.5	-.2	-1.0	4.2	-.8	-1.9	4.6

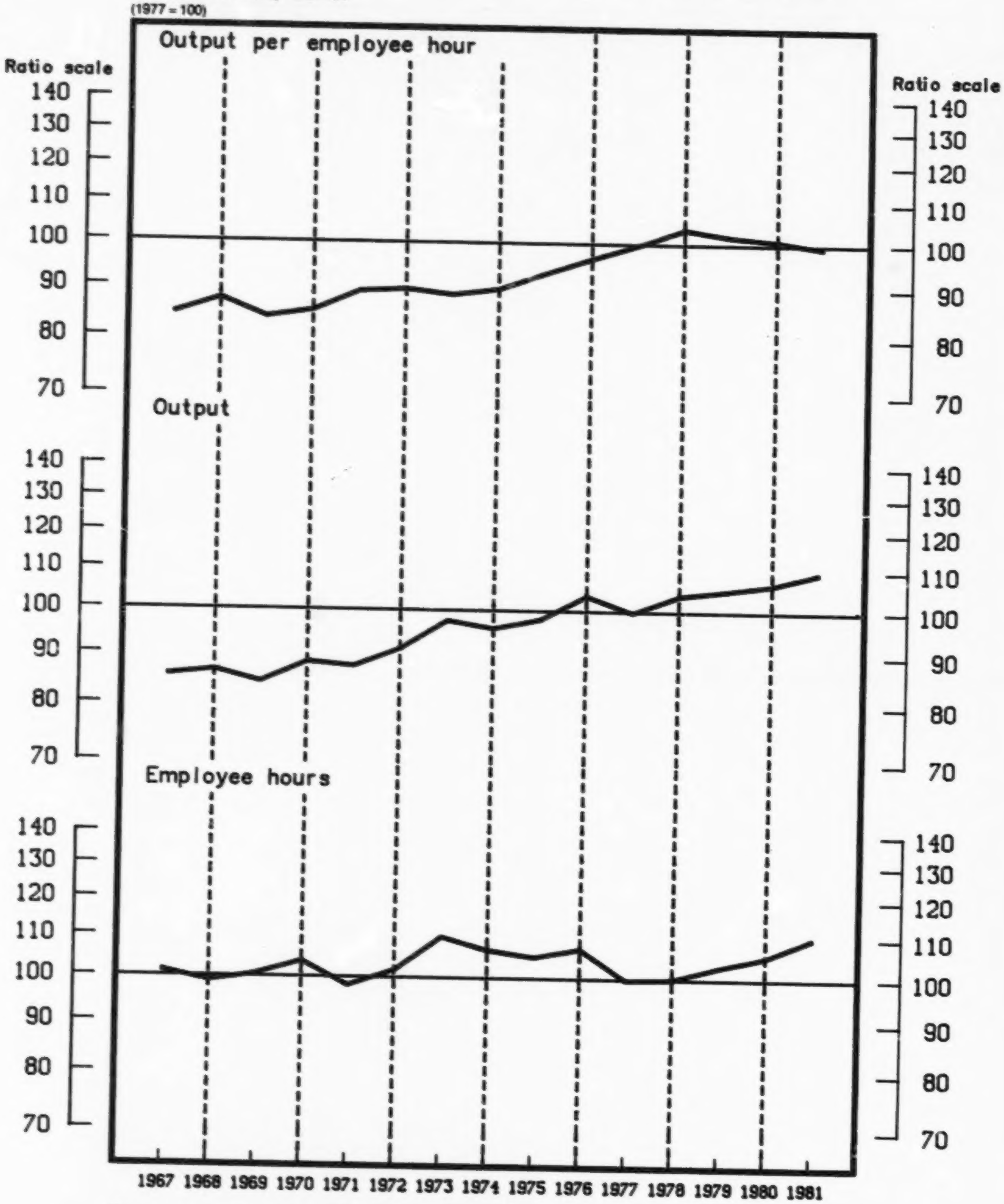
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 28. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Output per hour and related data, 1967-81

(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 53. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output per employee hour and output per employee, 1954–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	66.6	61.3	119.2	71.3	65.0	134.9
1955	65.9	60.6	122.4	71.9	65.4	137.6
1956	67.8	62.2	128.0	73.7	66.9	144.9
1957	69.7	64.0	129.1	75.6	68.7	145.8
1958	70.7	65.4	121.7	76.7	70.2	137.3
1959	72.3	67.7	112.9	78.6	72.8	127.5
1960	75.5	70.8	115.5	81.4	75.6	130.1
1961	77.1	72.6	113.5	83.5	78.1	127.5
1962	77.4	73.5	106.3	84.6	79.8	120.0
1963	80.9	76.3	116.1	86.3	82.6	130.8
1964	79.7	75.1	115.0	86.9	81.3	129.9
1965	83.3	78.8	117.1	87.3	81.6	131.9
1966	83.3	79.2	114.3	89.3	84.0	128.2
1967	84.6	80.3	117.2	90.1	84.6	131.4
1968	87.6	83.2	120.4	89.4	83.6	132.9
1969	83.9	80.4	108.6	86.6	82.0	119.4
1970	85.3	81.1	116.1	90.8	85.7	127.5
1971	89.3	85.9	112.9	93.6	89.0	124.0
1972	89.8	86.5	111.4	93.3	89.0	122.0
1973	88.7	86.2	103.4	93.1	89.6	113.6
1974	89.9	88.2	99.3	92.4	89.9	106.4
1975	93.3	92.5	97.6	95.4	94.2	102.5
1976	96.7	95.4	103.8	99.9	98.6	106.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.8	103.8	104.1	107.4	108.1	104.1
1979	102.1	103.7	94.4	105.6	108.2	94.9
1980	101.1	104.1	87.6	105.1	109.4	88.5
1981 [2]	99.5	102.3	87.4	105.7	110.2	87.9
Average annual percent change:						
1947-81	1.5	1.8	-.6	1.3	1.7	-1.0
1976-81	.5	1.3	-3.8	1.2	2.4	-4.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 54. Cigarettes, chewing and smoking tobacco (SIC 2111, 2131): Indexes of output, employee hours, and employees, 1954–81

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	63.4	95.2	103.4	53.2	86.9	97.5	47.0
1955	65.1	96.6	107.5	53.2	90.6	99.6	47.3
1956	66.2	97.7	106.5	51.7	89.8	99.0	45.7
1957	68.8	98.7	107.5	53.3	91.0	100.2	47.2
1958	72.9	103.1	111.5	59.9	95.1	103.9	53.1
1959	77.0	106.5	113.8	68.2	98.0	105.8	60.4
1960	79.0	104.6	111.6	68.4	97.0	104.5	60.7
1961	80.7	104.7	111.1	71.1	96.6	103.3	63.3
1962	80.4	103.9	109.4	75.6	95.0	100.7	67.0
1963	82.8	102.4	108.5	71.3	93.8	100.2	63.3
1964	82.1	103.0	109.3	71.4	94.5	101.0	63.2
1965	83.5	100.3	106.0	71.3	95.6	102.3	63.3
1966	84.5	101.4	106.7	73.9	94.6	100.6	65.9
1967	85.8	101.4	106.8	73.2	95.2	101.4	65.3
1968	86.8	99.1	104.3	72.1	97.1	103.8	65.3
1969	84.5	100.7	105.1	77.8	97.6	103.1	70.8
1970	86.6	103.9	109.2	76.3	97.6	103.4	69.5
1971	87.8	98.3	102.2	77.8	93.8	98.6	70.8
1972	91.5	101.9	105.8	82.1	98.1	102.8	75.0
1973	97.8	110.2	113.4	94.6	105.1	109.1	86.1
1974	96.1	106.9	108.9	96.8	104.0	106.9	90.3
1975	98.2	105.3	106.2	100.6	102.9	104.3	95.8
1976	103.9	107.4	108.9	100.1	104.0	105.4	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	100.3	100.3	100.0	96.9	96.3	100.0
1979	105.4	103.2	101.6	111.7	99.8	97.4	111.1
1980	106.9	105.7	102.7	121.7	101.7	97.7	120.8
1981 [1]	109.9	110.4	107.4	125.8	104.0	99.7	125.0
Average annual percent change:							
1947-81	1.8	.3	(2)	2.4	.5	.1	2.8
1976-81	1.4	1.0	.1	5.4	.2	-1.0	5.7

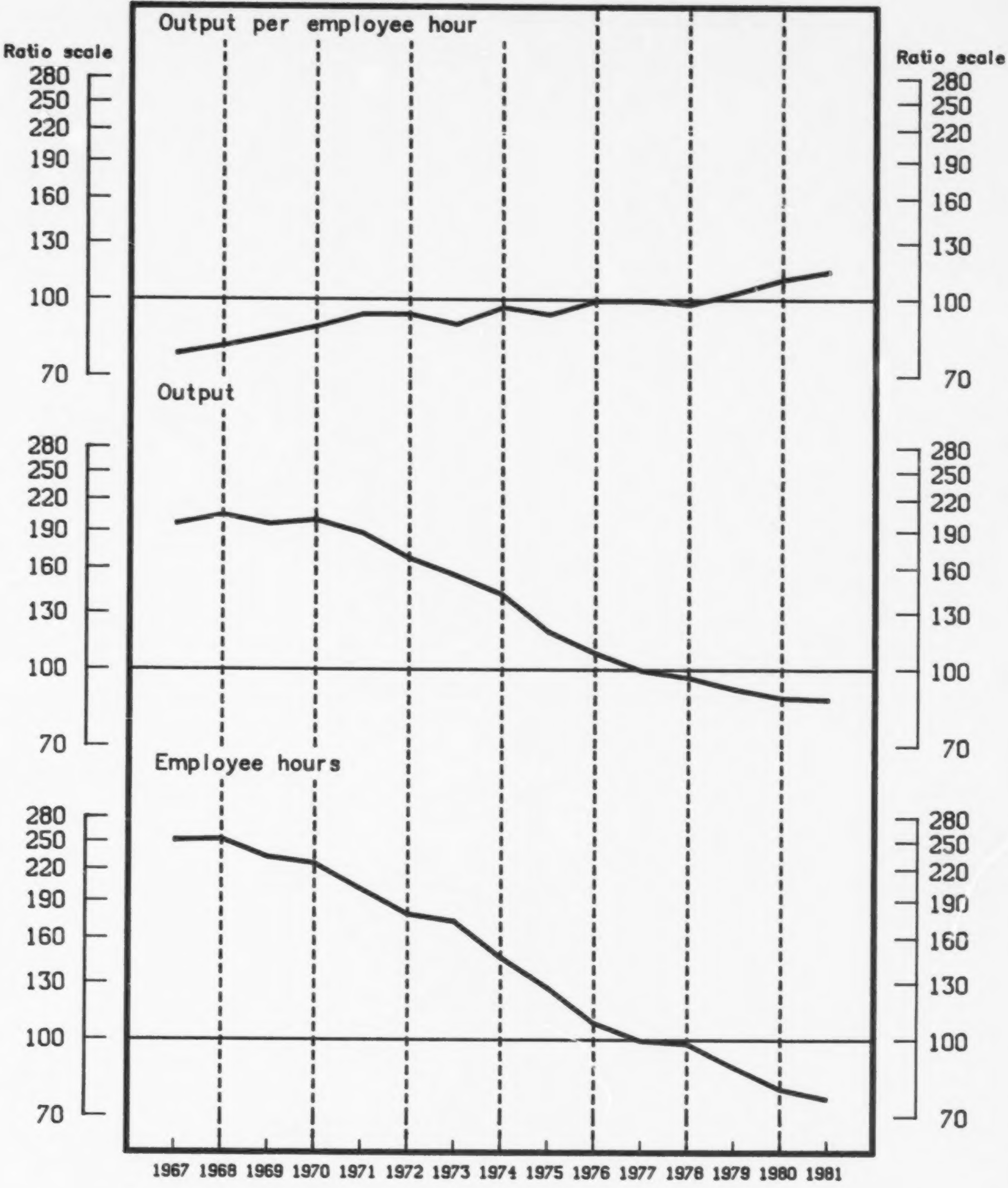
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; the Bureau of the Census; and Agricultural Marketing Service, U.S. Department of Agriculture. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 29. Cigars (SIC 2121): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 55. Cigars (SIC 2121): Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	35.5	34.7	46.8	35.9	34.8	52.0
1955	35.8	35.0	45.7	35.9	34.9	50.4
1956	39.4	38.7	48.4	39.3	38.3	53.7
1957	42.1	41.4	51.3	42.2	41.2	56.9
1958	48.8	48.5	52.3	49.9	49.3	57.9
1959	53.0	52.9	54.6	54.8	54.3	60.4
1960	58.6	58.4	61.0	60.3	59.6	68.2
1961	62.1	62.6	57.5	64.3	64.3	64.8
1962	66.5	67.1	60.5	68.4	68.3	69.4
1963	71.6	71.7	68.8	73.5	73.1	78.8
1964	79.1	77.6	98.3	85.6	83.7	113.1
1965	81.5	81.5	81.6	84.2	83.3	93.5
1966	80.6	79.8	89.9	82.5	80.9	102.6
1967	78.0	79.2	67.4	80.0	80.4	76.9
1968	80.9	81.8	72.5	83.3	83.7	80.0
1969	84.4	85.6	74.0	87.2	87.9	81.3
1970	88.4	89.4	80.2	91.6	91.9	88.0
1971	93.7	93.8	92.8	97.1	96.6	101.9
1972	93.8	95.6	77.1	96.0	97.6	84.3
1973	89.5	90.2	82.7	92.1	92.2	90.7
1974	96.9	96.3	103.4	93.7	92.4	110.9
1975	93.7	95.2	79.9	94.0	95.2	83.8
1976	99.9	100.7	92.3	99.5	99.9	95.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.2	96.8	116.2	98.1	96.8	113.0
1979	103.7	103.1	110.2	104.0	103.6	107.1
1980	110.3	110.8	105.8	111.2	112.1	102.8
1981 [2]	114.5	113.2	131.0	116.1	115.5	122.4
Average annual percent change:						
1947-81	4.6	4.7	3.3	4.6	4.7	2.9
1976-81	3.0	2.8	5.5	3.3	3.3	3.8

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 56. Cigars (SIC 2121): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

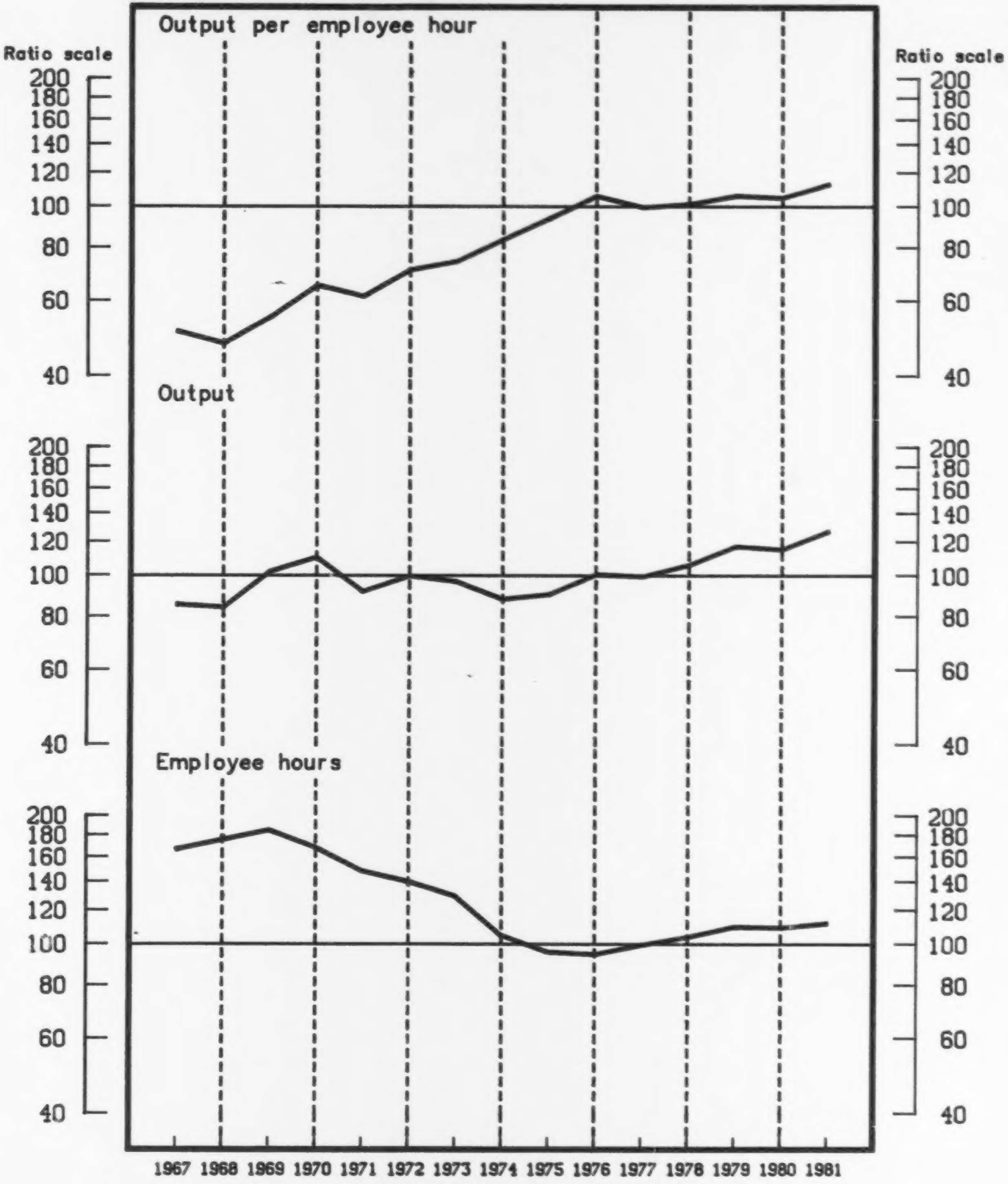
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	179.4	505.8	517.5	383.6	500.0	515.5	345.2
1955	178.3	498.7	509.0	390.3	497.0	511.1	353.5
1956	177.5	450.1	458.4	366.9	452.1	463.9	330.8
1957	181.4	430.6	437.7	353.4	429.4	440.3	319.0
1958	190.5	390.1	392.8	363.9	381.5	386.2	328.8
1959	202.0	381.0	382.0	370.1	368.9	372.0	334.7
1960	206.1	351.6	352.9	337.8	342.0	345.9	302.1
1961	195.7	315.2	312.7	340.5	304.2	304.4	302.1
1962	196.8	295.9	293.5	325.2	287.9	288.0	283.5
1963	198.0	276.7	276.1	287.7	269.4	270.8	251.4
1964	255.9	323.5	329.9	260.4	298.8	305.7	226.2
1965	230.2	282.5	282.5	282.1	273.3	276.2	246.3
1966	207.5	257.5	259.9	230.8	251.6	256.5	202.3
1967	197.6	253.2	249.4	293.3	246.9	245.7	257.1
1968	205.7	254.4	251.6	283.6	246.9	245.7	257.1
1969	197.2	233.7	230.4	266.6	226.2	224.3	242.7
1970	201.0	227.3	224.9	250.7	219.5	218.7	228.5
1971	189.1	201.8	201.5	203.8	194.8	195.8	185.6
1972	168.6	179.7	176.3	218.8	175.6	172.7	200.0
1973	155.5	173.7	172.3	188.0	168.9	168.6	171.5
1974	142.5	147.1	147.9	137.8	152.1	154.3	128.5
1975	119.8	127.8	125.9	149.9	127.4	125.8	142.9
1976	108.5	108.6	107.7	117.6	109.1	108.6	114.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.8	98.6	100.0	83.3	98.7	100.0	85.7
1979	91.8	88.5	89.0	83.3	88.3	88.6	85.7
1980	88.1	79.9	79.5	83.3	79.2	78.6	85.7
1981 [1]	87.4	76.3	77.2	66.7	75.3	75.7	71.4
Average annual percent change:							
1947-81	-1.6	-5.9	-6.0	-4.8	-5.9	-6.0	-4.4
1976-81	-4.2	-7.0	-6.8	-9.2	-7.3	-7.3	-7.7

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Alcohol, Tobacco, and Firearms, U.S. Department of the Treasury; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 30. Hosiery (SIC 2251, 2252): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 57. Hosiery (SIC 2251, 2252): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	23.9	23.3	32.0	23.8	23.0	34.0
1955	23.5	23.0	30.3	23.6	22.9	32.1
1956	24.0	23.5	30.4	24.0	23.3	32.2
1957	25.2	24.7	30.3	25.1	24.4	32.2
1958	29.7	29.3	33.7	29.2	28.7	35.7
1959	29.5	29.0	35.6	29.9	29.3	37.7
1960	30.3	29.7	37.0	30.6	29.8	39.3
1961	33.1	32.7	37.8	33.6	33.0	39.9
1962	34.3	33.9	38.8	34.8	34.2	41.1
1963	38.8	38.1	46.3	38.9	38.0	49.1
1964	41.4	40.6	50.4	42.6	41.6	53.6
1965	41.4	40.6	50.4	42.3	41.3	53.3
1966	45.5	44.8	53.2	47.0	46.1	56.0
1967	51.1	50.7	56.0	52.1	51.4	59.2
1968	47.9	47.7	49.9	49.0	48.5	54.6
1969	55.2	55.0	57.1	56.5	56.0	61.0
1970	65.5	65.8	63.6	63.5	63.2	66.6
1971	61.8	63.2	52.6	60.3	60.9	55.4
1972	71.2	72.6	61.5	71.9	72.8	64.8
1973	74.6	76.4	63.1	72.1	73.0	64.9
1974	84.0	85.9	71.0	80.5	81.7	70.9
1975	94.3	96.4	79.8	89.2	90.3	80.1
1976	106.4	107.9	96.7	105.1	106.1	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.8	102.3	98.2	102.7	103.3	98.2
1979	106.5	108.4	92.2	110.6	113.1	92.8
1980	105.3	108.1	85.8	109.0	112.3	86.8
1981 [2]	113.4	116.6	91.0	118.8	123.0	91.2
Average annual percent change:						
1947-81	6.1	6.3	4.5	6.0	6.2	4.3
1976-81	1.5	2.0	-2.3	2.7	3.4	-2.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the National Association of Hosiery Manufacturers, Inc., and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 58. Hosiery (SIC 2251, 2252): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

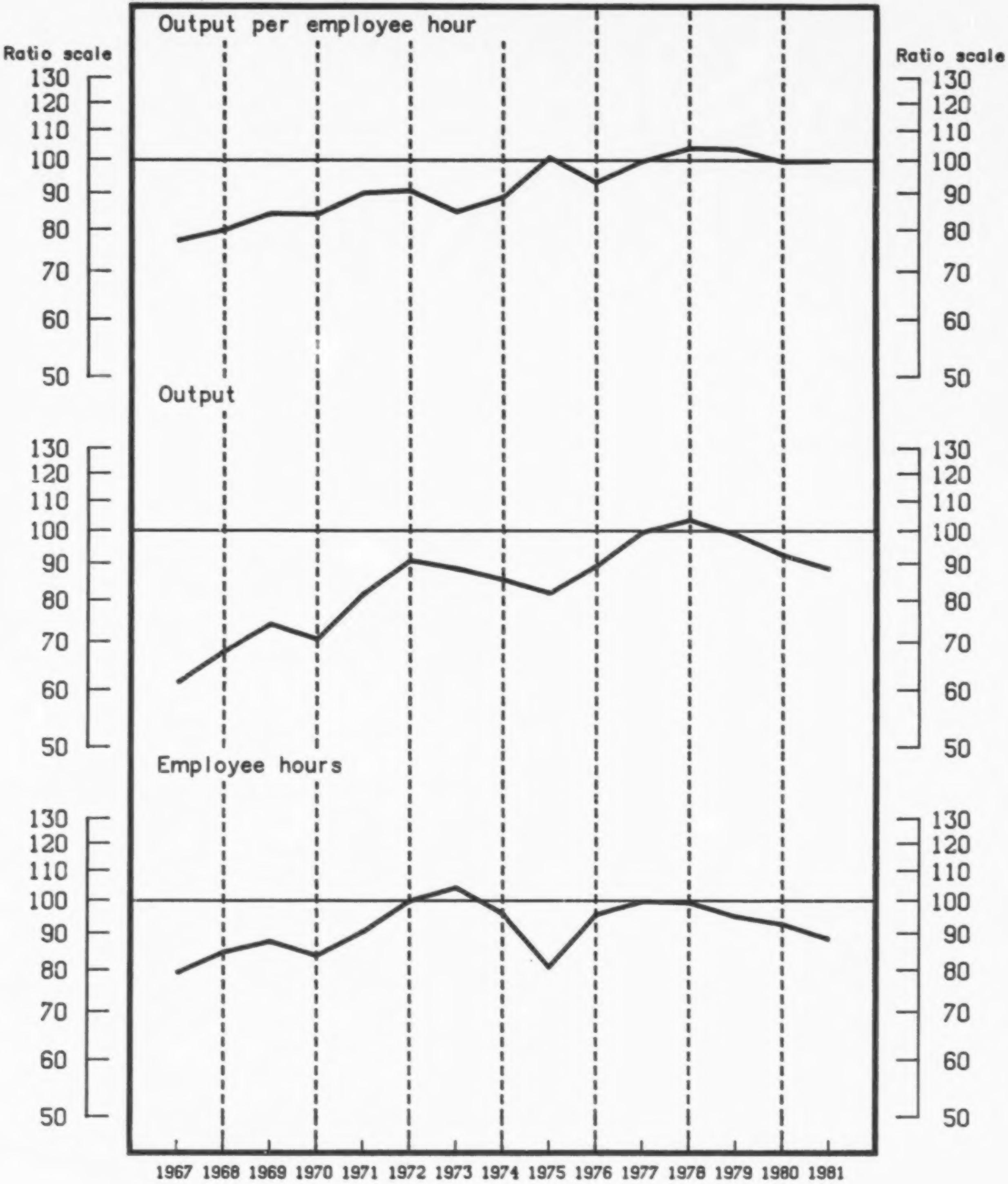
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	50.0	209.2	214.9	156.2	209.9	217.2	147.0
1955	50.7	215.3	220.5	167.5	215.2	221.7	158.1
1956	49.5	206.0	210.8	162.9	206.4	212.7	153.5
1957	49.5	196.8	200.5	163.2	197.5	202.7	153.9
1958	51.3	172.8	174.8	152.2	175.5	179.0	143.5
1959	54.0	182.9	186.3	151.8	180.4	184.6	143.2
1960	53.9	177.7	181.2	145.8	176.1	180.8	137.1
1961	59.0	178.0	180.4	156.0	175.6	179.0	147.7
1962	60.5	176.5	178.5	155.9	174.0	177.1	147.2
1963	62.7	161.7	164.5	135.4	161.3	165.1	127.8
1964	66.6	160.7	164.0	132.2	156.5	160.1	124.2
1965	70.2	169.6	172.8	139.4	165.9	169.8	131.7
1966	77.4	170.1	172.8	145.6	164.6	167.8	138.1
1967	85.8	157.8	169.2	153.1	164.7	166.9	144.9
1968	84.6	176.8	177.3	169.7	172.8	174.6	154.9
1969	102.7	186.1	186.6	179.8	181.7	183.3	168.3
1970	110.9	169.3	168.5	174.3	174.6	175.5	166.5
1971	92.2	149.2	146.0	175.2	152.9	151.3	166.5
1972	100.3	140.9	138.2	163.2	139.5	137.7	154.9
1973	97.3	130.4	127.4	154.1	134.9	133.2	149.9
1974	88.5	105.4	103.0	124.7	110.0	108.3	124.9
1975	90.8	96.3	94.2	113.8	101.8	100.5	113.3
1976	101.1	95.0	93.7	104.6	96.2	95.3	103.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	104.5	104.0	108.3	103.6	103.0	108.3
1979	117.6	110.4	108.5	127.5	106.3	104.0	126.7
1980	115.7	109.9	107.0	134.9	106.1	103.0	133.3
1981 [1]	127.7	112.6	109.5	140.4	107.5	103.8	140.0
Average annual percent change:							
1947-81	3.2	-2.6	-2.8	-1.2	-2.6	-2.8	-1.0
1976-81	5.0	3.5	3.0	7.5	2.2	1.5	7.5

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the National Association of Hosiery Manufacturers, Inc., and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 31. Yarn mills, except wool (SIC 2281): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 59. Yarn mills, except wool (SIC 2281): Indexes of output per employee hour and output per employee, 1958–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	59.5	58.7	71.9	54.0	52.7	74.8
1959	62.3	61.3	79.6	61.5	60.1	83.0
1960	65.3	64.2	82.0	62.0	60.5	85.0
1961	71.4	70.4	87.1	68.8	67.4	90.2
1962	74.7	73.6	94.0	73.5	71.9	97.4
1963	76.3	74.7	106.1	75.9	74.0	109.3
1964	80.6	79.9	91.3	83.1	82.4	94.4
1965	84.6	83.2	108.1	90.1	88.5	112.0
1966	81.8	79.9	120.2	85.5	83.3	123.5
1967	77.5	76.1	102.8	77.0	75.2	106.2
1968	80.2	78.9	102.4	81.9	80.0	112.2
1969	84.5	83.3	105.7	83.3	81.4	112.4
1970	84.3	83.6	96.7	82.2	80.9	101.0
1971	90.3	89.5	101.6	91.9	90.9	106.5
1972	91.0	90.2	105.3	94.6	93.5	110.5
1973	85.0	84.1	99.2	86.6	85.5	101.1
1974	89.1	89.4	87.1	84.8	84.6	86.9
1975	101.2	102.0	92.6	93.7	93.9	92.2
1976	93.5	93.1	100.1	91.8	91.2	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.2	104.1	105.4	103.5	103.3	105.3
1979	103.9	103.8	106.1	103.3	103.1	106.2
1980	99.8	100.5	91.4	97.0	97.5	91.5
1981 [2]	100.1	101.6	84.4	94.7	95.7	84.3
Average annual percent change:						
1958-81	2.1	2.2	.5	2.1	2.3	.3
1976-81	1.0	1.3	-3.1	.2	.5	-3.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 60. Yarn mills, except wool (SIC 2281): Indexes of output, employee hours, and employees, 1958–81

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	39.4	68.2	67.1	54.8	72.9	74.7	52.7
1959	44.8	71.9	73.1	56.3	72.9	74.6	54.0
1960	42.5	65.1	66.2	51.6	68.6	70.2	50.0
1961	45.1	63.2	64.1	51.8	65.6	66.9	50.0
1962	48.7	65.2	66.2	51.8	66.3	67.7	50.0
1963	50.3	65.9	67.3	47.4	66.3	68.0	46.0
1964	57.4	71.2	71.8	62.9	69.1	69.7	60.8
1965	66.5	78.6	79.9	61.5	73.8	75.1	59.4
1966	66.7	81.5	83.5	55.5	78.0	80.1	54.0
1967	61.7	79.6	81.1	60.0	80.1	82.0	58.1
1968	68.2	85.0	86.4	66.6	83.3	85.2	60.8
1969	74.4	88.0	89.3	70.4	89.3	91.4	66.2
1970	70.9	84.1	84.8	73.3	86.3	87.6	70.2
1971	82.0	90.8	91.6	80.7	89.2	90.2	77.0
1972	91.2	100.2	101.1	86.6	96.4	97.5	82.5
1973	88.9	104.6	105.7	89.6	102.7	104.0	87.9
1974	85.8	96.3	96.0	98.5	101.2	101.4	98.7
1975	82.2	81.2	80.6	88.8	87.7	87.5	89.2
1976	89.7	95.9	96.3	89.6	97.7	98.4	89.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.8	99.6	99.7	98.5	100.3	100.5	98.6
1979	99.0	95.3	95.4	93.3	95.8	96.0	93.2
1980	92.8	93.0	92.3	101.5	95.7	95.2	101.4
1981 [1]	88.8	88.7	87.4	105.2	93.8	92.8	105.4
Average annual percent change:							
1958-81	4.1	2.0	1.8	3.6	2.0	1.8	3.8
1976-81	-.9	-1.8	-2.2	2.3	-1.1	-1.4	2.4

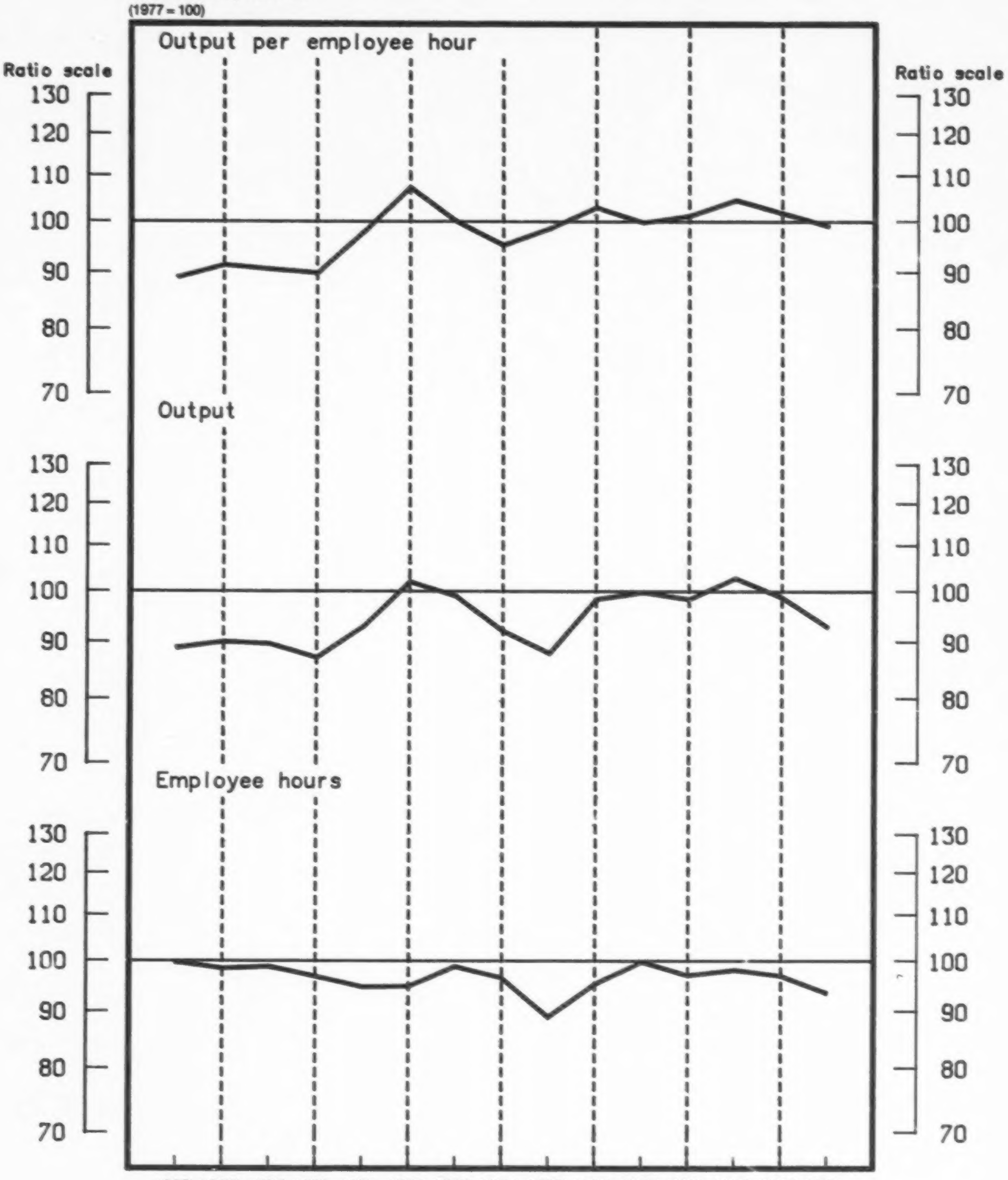
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 32. Sawmills and planing mills, general (SIC 2421): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 61. Sawmills and planing mills, general (SIC 2421): Indexes of output per employee hour and output per employee, 1958-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	65.2	66.7	55.3	61.3	62.0	55.6
1959	67.5	65.7	87.6	64.0	61.9	88.0
1960	67.1	65.4	86.1	65.3	63.4	86.1
1961	73.1	71.1	94.9	70.2	68.0	94.1
1962	76.4	74.0	104.4	74.1	71.6	103.0
1963	79.7	79.0	86.1	77.1	76.1	85.1
1964	84.7	84.3	87.4	83.4	82.9	86.6
1965	81.8	80.9	89.8	80.0	79.0	88.8
1966	82.7	81.6	93.0	80.6	79.3	91.4
1967	89.2	87.2	111.1	86.5	84.3	109.5
1968	91.5	90.0	106.1	89.9	88.2	106.7
1969	90.7	89.5	101.8	88.6	87.0	102.5
1970	90.0	90.1	89.2	88.0	87.7	90.6
1971	98.1	97.3	105.2	96.2	94.9	106.9
1972	107.6	106.8	114.1	107.5	106.5	116.0
1973	100.2	99.6	106.0	100.1	99.3	106.9
1974	95.4	95.9	91.5	93.2	93.5	91.3
1975	98.8	98.9	98.1	96.7	96.5	98.2
1976	103.2	103.1	103.2	102.2	102.0	103.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	102.1	96.0	99.7	100.2	96.1
1979	101.8	105.7	97.5	102.0	102.6	97.9
1980	102.0	105.3	80.6	98.9	101.6	81.4
1981 [2]	99.3	102.5	78.2	96.6	99.4	78.4
Average annual percent change:						
1958-81	2.0	2.2	.6	2.1	2.3	.6
1976-81	-.3	.5	-5.6	-.8	-.2	-5.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 62. Sawmills and planing mills, general (SIC 2421): Indexes of output, employee hours, and employees, 1958-81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	86.0	131.9	129.0	155.6	140.3	138.6	154.6
1959	92.1	136.4	140.1	105.1	143.9	148.8	104.6
1960	89.6	133.6	137.0	104.1	137.3	141.4	104.1
1961	85.8	117.4	120.7	90.4	122.2	126.2	91.2
1962	88.7	116.1	119.8	85.0	119.7	123.9	86.1
1963	91.2	114.4	115.4	105.9	118.3	119.8	107.2
1964	94.7	111.8	112.3	108.3	113.5	114.2	109.3
1965	92.0	112.5	113.7	102.5	115.0	116.5	103.6
1966	89.6	108.4	109.8	96.3	111.2	113.0	98.0
1967	89.1	99.9	102.2	80.2	103.0	105.7	81.4
1968	90.2	98.6	100.2	85.0	100.3	102.3	84.5
1969	89.8	99.0	100.3	88.2	101.3	103.2	87.6
1970	87.3	97.0	96.9	97.9	99.2	99.6	96.4
1971	93.1	94.9	95.7	88.5	96.8	98.1	87.1
1972	102.2	95.0	95.7	89.6	95.1	96.0	88.1
1973	99.2	99.0	99.6	93.6	99.1	99.9	92.8
1974	92.3	96.7	96.2	100.9	99.0	98.7	101.1
1975	88.1	89.2	89.1	89.8	91.1	91.3	89.7
1976	98.6	95.5	95.6	95.5	96.5	96.7	94.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.6	97.2	96.6	102.7	98.9	98.4	102.6
1979	103.0	98.3	97.4	105.6	101.0	100.4	105.2
1980	99.0	97.1	94.0	122.8	100.1	97.4	121.6
1981 [1]	93.0	93.7	90.7	119.0	96.3	93.6	118.6
Average annual percent change:							
1958-81	.5	-1.4	-1.6	([2])	-1.6	-1.7	-.1
1976-81	-.8	-.5	-1.3	5.1	([2])	-.6	5.1

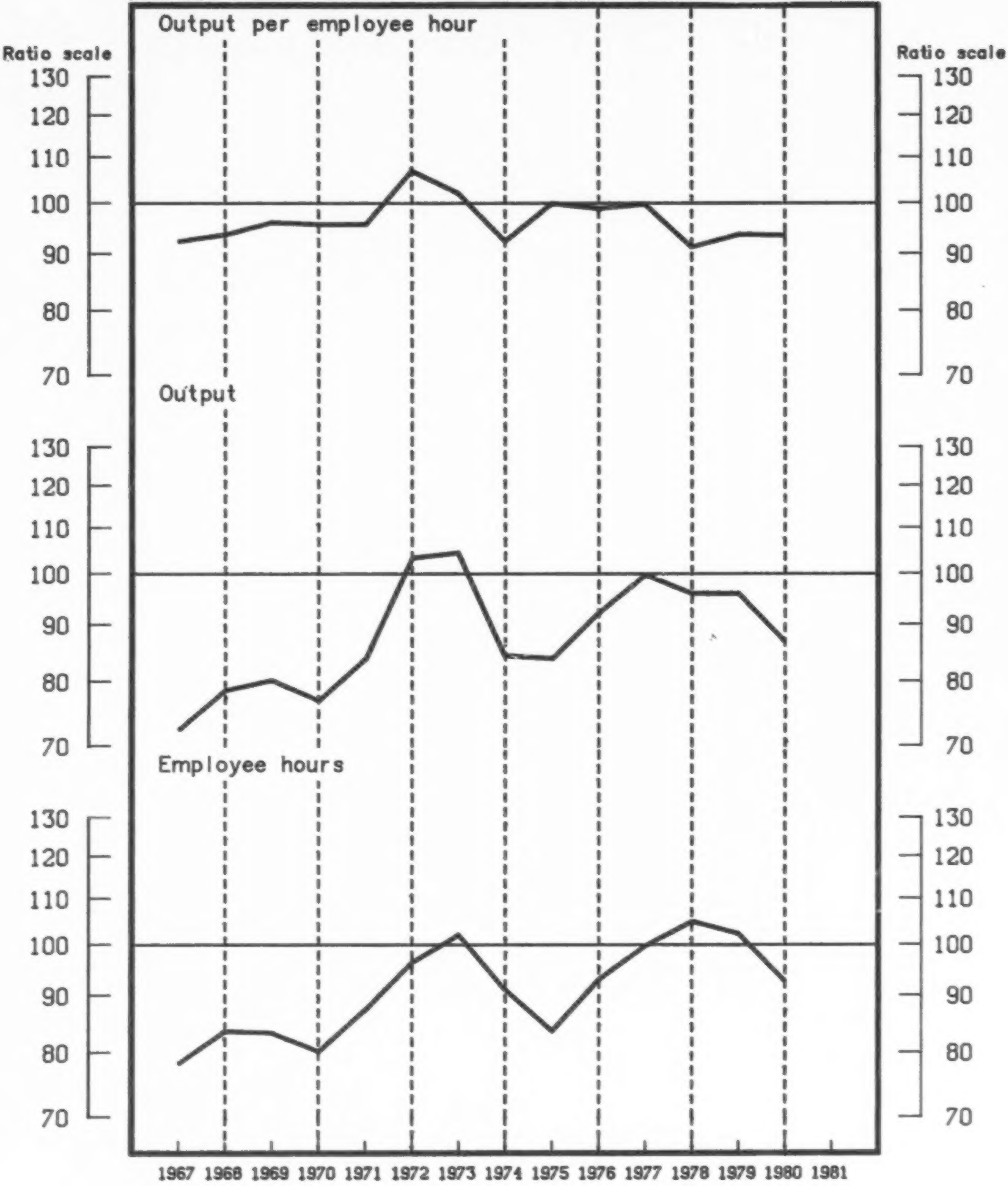
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 33. Millwork (SIC 2431): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 63. Millwork (SIC 2431): Indexes of output per employee hour and output per employee, 1958-80

(1977=100)

Year	Output per hour[1]			Output per employee[1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	75.6	77.0	70.7	77.2	78.3	72.8
1959	71.7	72.4	69.7	74.2	74.8	71.8
1960	73.2	74.8	67.7	73.8	75.0	69.3
1961	76.9	78.1	72.6	78.3	79.4	73.7
1962	78.1	78.8	76.3	79.8	80.6	77.1
1963	86.0	86.0	86.5	88.6	88.9	87.3
1964	86.0	85.9	87.2	88.3	88.3	88.0
1965	85.8	86.1	85.2	88.2	88.7	88.0
1966	82.7	84.0	78.4	84.4	85.7	79.3
1967	92.6	93.3	90.1	94.9	96.0	91.0
1968	93.9	93.7	96.0	95.5	95.9	94.4
1969	96.3	96.6	95.7	98.2	98.6	94.9
1970	95.9	97.6	89.7	95.7	97.2	89.8
1971	95.9	95.3	99.3	98.3	98.8	95.1
1972	107.2	104.5	121.6	107.0	106.1	111.3
1973	102.3	101.6	106.7	101.6	101.6	101.7
1974	92.7	94.4	85.5	91.3	92.8	84.6
1975	100.2	102.6	90.9	100.4	102.8	90.3
1976	99.1	99.6	97.3	98.8	99.2	97.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	91.5	91.5	92.0	91.2	91.0	92.0
1979	93.9	95.2	88.1	92.5	93.5	88.1
1980[2]	93.7	97.2	80.4	92.1	95.0	80.4
Average annual percent change:						
1958-80	1.4	1.4	1.3	1.2	1.2	1.1
1976-80	-1.7	-1.0	-5.0	-2.2	-1.5	-4.9

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Rubber Manufacturers Association, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 64. Millwork (SIC 2431): Indexes of output, employee hours, and employees, 1958-80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	58.5	77.4	76.0	82.8	75.8	74.7	80.4
1959	61.2	85.3	84.5	87.8	82.5	81.8	85.2
1960	55.7	76.1	74.5	82.3	75.5	74.3	80.4
1961	56.6	73.6	72.5	78.0	72.3	71.3	76.8
1962	59.7	76.4	75.8	78.2	74.8	74.1	77.4
1963	68.1	79.2	79.2	78.7	76.9	76.6	78.0
1964	69.2	80.5	80.6	79.4	78.4	78.4	78.6
1965	70.2	81.8	81.5	82.4	79.6	79.1	81.6
1966	66.6	80.5	79.3	84.9	78.9	77.7	84.0
1967	72.6	78.4	77.8	80.6	76.5	75.6	79.8
1968	78.7	83.8	84.0	82.0	82.4	82.1	83.4
1969	80.4	83.5	83.2	84.0	83.6	83.2	84.7
1970	77.1	80.4	79.0	86.0	80.6	79.3	85.9
1971	84.0	87.6	88.1	84.6	87.2	86.8	88.3
1972	103.6	96.6	99.1	85.2	96.8	97.6	93.1
1973	104.7	102.3	103.1	98.1	103.1	103.1	103.0
1974	84.6	91.3	89.6	99.0	92.7	91.2	100.0
1975	84.1	83.9	82.0	92.5	83.8	81.8	93.1
1976	92.5	93.3	92.9	95.1	93.6	93.2	95.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.2	105.1	105.1	104.6	105.5	105.7	104.6
1979	96.2	102.5	101.1	109.2	104.0	102.9	109.2
1980[1]	87.1	93.0	89.6	108.4	94.6	91.7	108.4
Average annual percent change:							
1958-80	2.7	1.3	1.3	1.4	1.5	1.5	1.5
1976-80	-1.6	.2	-.6	3.6	.6	(2)	3.5

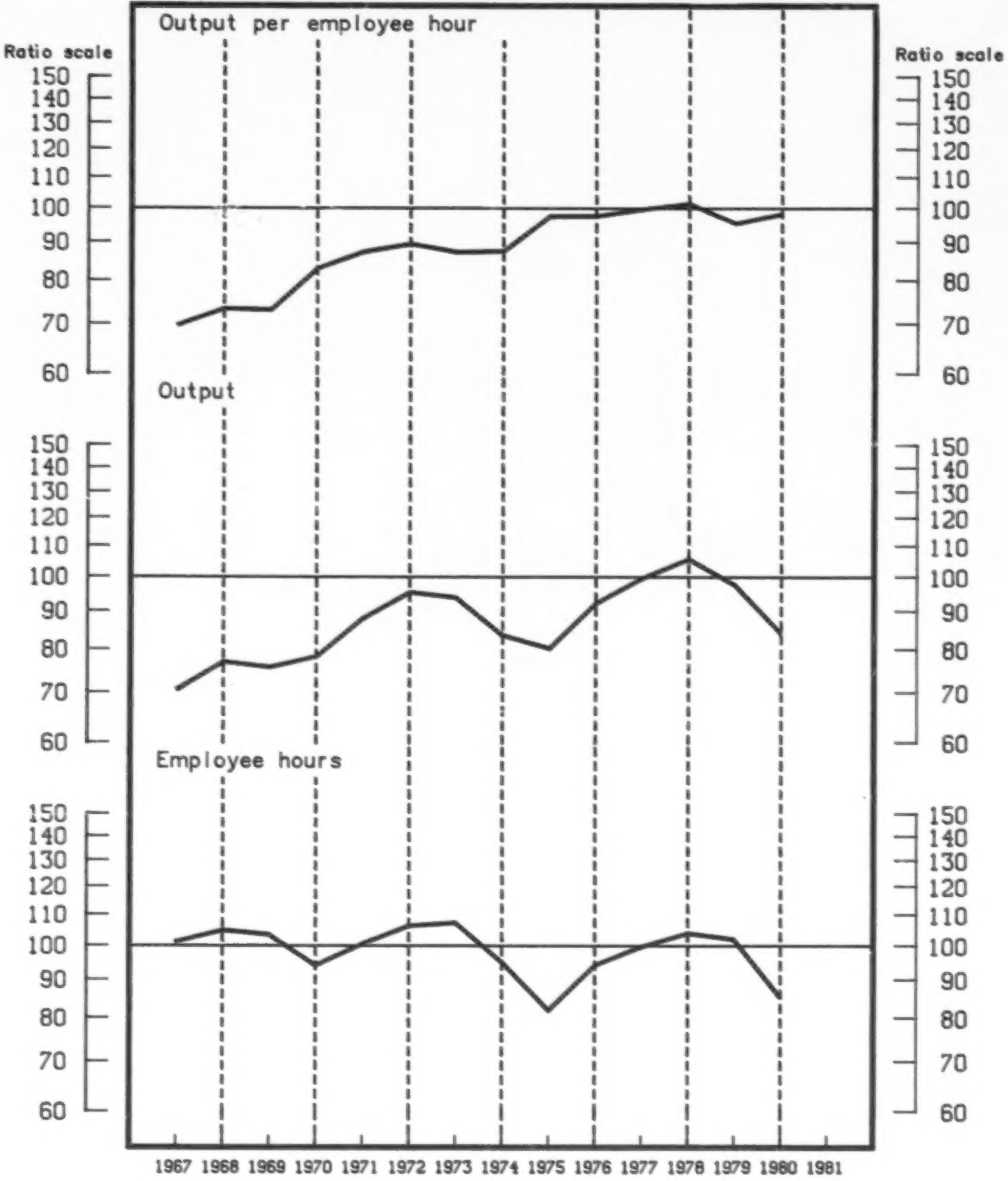
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Rubber Manufacturers Association and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 34. Veneer and plywood (SIC 2435, 2436): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 65. Veneer and plywood (SIC 2435, 2436): Indexes of output per employee hour and output per employee, 1958–80

(1977=100)

Year	Output per hour[1]			Output per employee[1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	41.7	40.4	55.2	41.4	40.0	56.7
1959	46.9	45.2	69.1	48.0	46.1	70.9
1960	49.3	47.7	67.7	48.3	46.8	69.1
1961	53.9	52.2	74.2	53.7	51.8	75.2
1962	58.3	56.1	86.1	58.0	56.7	86.8
1963	60.7	58.3	90.5	61.7	59.2	91.1
1964	62.6	60.4	89.1	64.1	61.9	89.6
1965	64.0	62.1	85.6	66.1	64.3	86.3
1966	64.3	62.5	83.3	65.8	64.0	83.9
1967	69.9	68.5	82.6	70.3	68.9	83.2
1968	73.5	71.7	91.1	75.2	73.7	89.4
1969	73.2	71.9	86.2	73.8	72.5	85.5
1970	83.2	83.0	83.7	82.2	82.0	83.7
1971	87.6	87.3	90.8	88.2	87.9	90.6
1972	89.8	88.8	98.7	93.0	92.5	98.2
1973	87.5	87.5	86.3	88.2	88.5	85.6
1974	87.8	88.8	80.7	85.9	86.7	79.9
1975	97.8	99.9	83.2	94.5	96.2	82.6
1976	97.9	98.1	96.3	97.6	97.8	96.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.7	102.2	97.5	101.3	101.8	97.6
1979	95.7	97.5	82.6	93.6	95.1	82.6
1980[2]	98.5	101.4	79.5	94.3	96.6	79.5
Average annual percent change:						
1958-80	3.9	4.2	1.2	3.8	4.1	1.1
1976-80	-.3	.4	-5.6	-1.3	-.7	-5.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 66. Veneer and plywood (SIC 2435, 2436): Indexes of output, employee hours, and employees, 1958–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	34.3	82.2	84.8	62.1	82.8	85.7	60.5
1959	43.8	93.3	97.0	63.4	91.3	95.1	61.8
1960	42.7	86.6	89.5	63.1	88.4	91.7	61.8
1961	46.5	86.2	89.1	62.7	86.6	89.7	61.8
1962	54.6	93.6	97.3	63.4	92.5	96.3	62.9
1963	56.3	92.8	96.6	62.2	91.3	95.1	61.8
1964	62.0	99.0	102.7	69.6	96.7	100.1	69.2
1965	68.2	106.5	109.8	79.7	103.1	106.1	79.0
1966	72.5	112.8	116.0	87.0	110.2	113.2	86.4
1967	70.9	101.5	103.5	85.8	100.9	102.9	85.2
1968	77.2	105.1	107.7	84.7	102.7	104.7	86.4
1969	75.9	103.7	105.6	88.0	102.9	104.7	88.8
1970	78.5	94.4	94.6	93.8	95.5	95.7	93.8
1971	88.3	100.8	101.2	97.3	100.1	100.4	97.5
1972	95.7	106.6	107.8	97.0	102.9	103.5	97.5
1973	94.1	107.6	107.5	109.1	106.7	106.3	109.9
1974	83.8	95.4	94.4	103.9	97.5	96.6	104.9
1975	80.5	82.3	80.6	96.8	85.2	83.7	97.5
1976	92.5	94.5	94.3	96.1	94.8	94.6	96.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.0	104.2	103.7	108.7	104.6	104.1	108.6
1979	97.9	102.3	100.4	118.5	104.6	102.9	118.5
1980[1]	84.4	85.7	83.2	106.2	89.5	87.4	106.2
Average annual percent change:							
1958-80	4.3	.3	(²)	3.0	.4	.2	3.2
1976-80	-2.0	-1.7	-2.4	3.8	-.7	-1.3	3.7

[1] Preliminary.

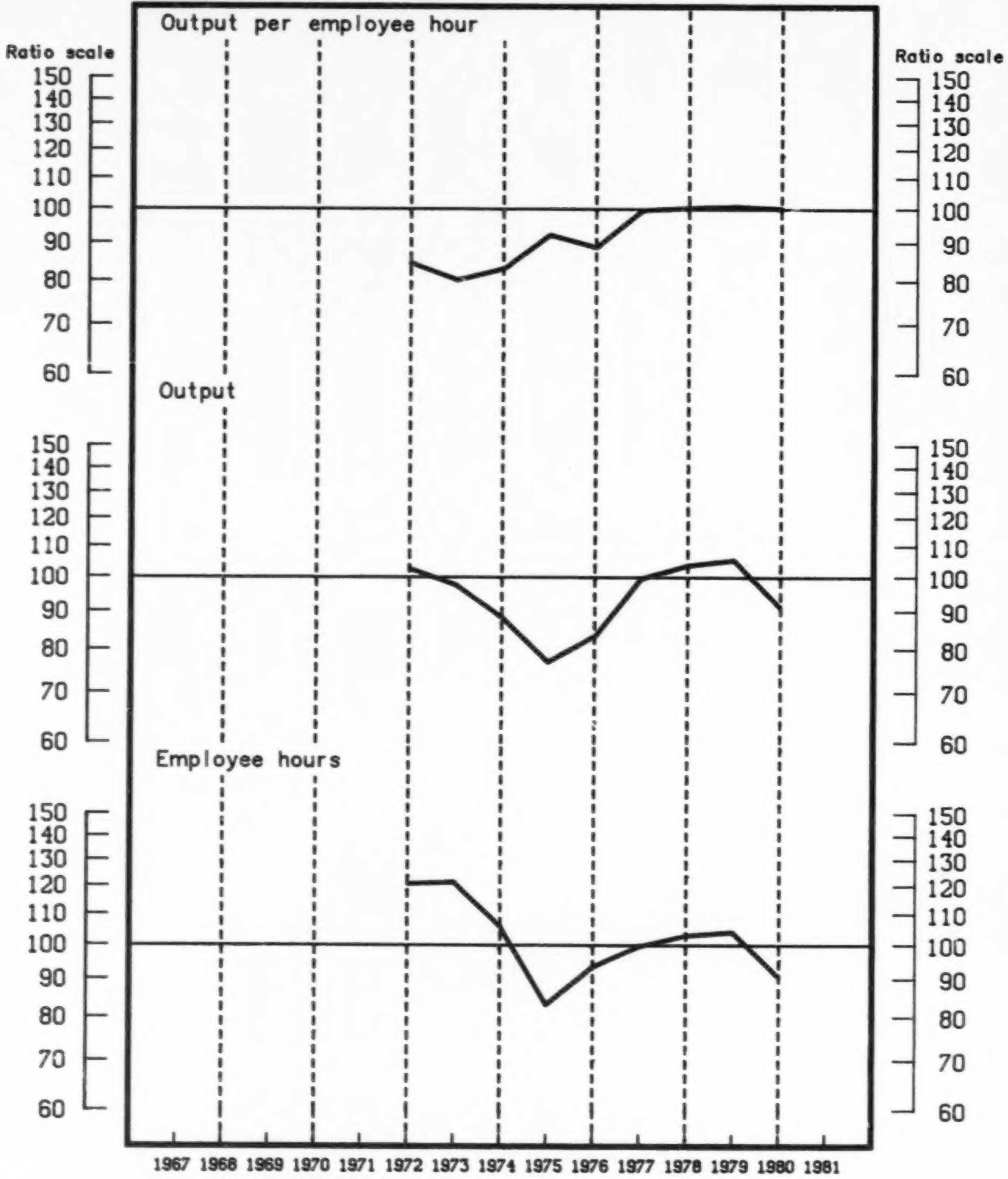
[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 35. Hardwood veneer and plywood (SIC 2435): Output per hour and related data, 1972-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 67. Hardwood veneer and plywood (SIC 2435): Indexes of output per employee hour and output per employee, 1972–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	84.9	83.5	97.0	87.7	86.6	96.5
1973	80.5	78.8	95.5	81.8	80.4	94.9
1974	83.4	81.7	99.6	82.7	81.1	98.6
1975	92.5	92.4	93.5	89.6	89.2	92.8
1976	89.1	88.7	93.2	89.1	88.7	93.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	99.8	107.7	99.5	98.6	107.7
1979	101.2	101.1	102.4	99.7	99.4	102.4
1980 [2]	100.5	101.3	94.6	97.0	97.3	94.6
Average annual percent change:						
1972-80	3.1	3.4	.6	2.5	2.7	.7
1976-80	2.6	2.8	.5	1.7	1.8	.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 68. Hardwood veneer and plywood (SIC 2435): Indexes of output, employee hours, and employees, 1972–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	103.0	121.3	123.3	106.2	117.5	118.9	106.7
1973	98.0	121.8	124.3	102.6	119.8	121.9	103.3
1974	88.7	106.4	108.6	89.1	107.2	109.4	90.0
1975	77.3	83.6	83.7	82.7	86.3	86.7	83.3
1976	83.7	93.9	94.4	89.8	93.9	94.4	90.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	103.4	104.3	96.7	104.6	105.6	96.7
1979	105.8	104.5	104.6	103.3	106.1	106.4	103.3
1980 [1]	91.5	91.0	90.3	96.7	94.3	94.0	96.7
Average annual percent change:							
1972-80	.6	-2.4	-2.7	(²)	-1.9	-2.1	-.1
1976-80	2.4	-.2	-.4	1.8	.7	.5	1.8

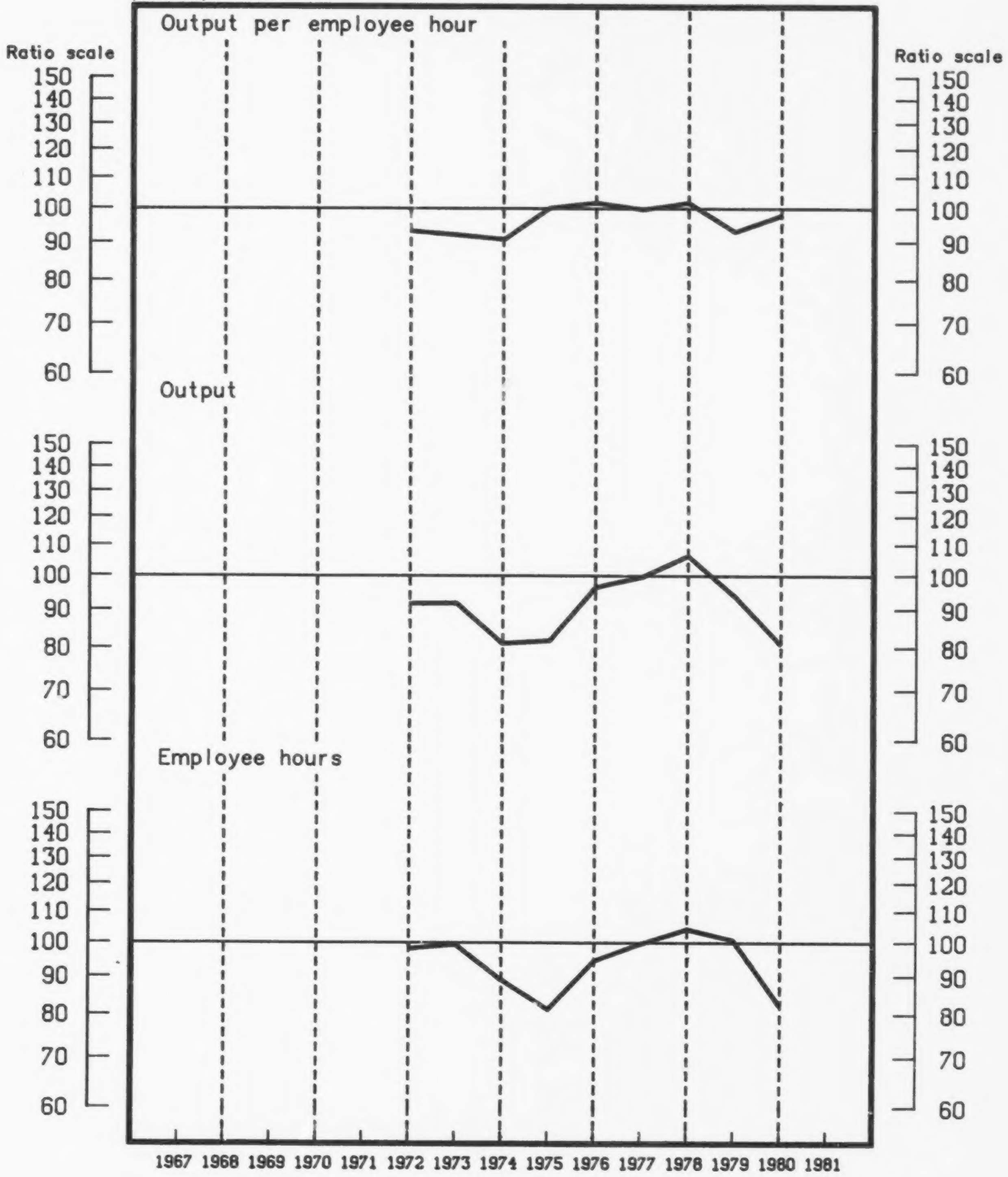
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 36. Softwood veneer and plywood (SIC 2436): Output per hour and related data, 1972-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 69. Softwood veneer and plywood (SIC 2436): Indexes of output per employee hour and output per employee, 1972-80
(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	93.5	92.7	100.4	97.3	96.9	99.9
1973	92.4	93.8	81.7	92.8	94.5	81.1
1974	91.1	93.9	72.3	88.4	90.9	71.6
1975	100.5	104.1	78.1	97.0	100.0	77.5
1976	102.1	102.8	97.1	101.7	102.3	96.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.1	103.4	92.3	102.0	103.4	92.3
1979	93.4	96.3	74.1	90.9	93.5	74.0
1980 [2]	98.2	102.4	72.6	93.5	97.0	72.6
Average annual percent change:						
1972-80	.8	1.1	-1.4	.2	.4	-1.3
1976-80	-1.5	-.5	-8.4	-2.6	-1.7	-8.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employmênt and hours based on data from the Bureau of Labor Statistics.

Table 70. Softwood veneer and plywood (SIC 2436): Indexes of output, employee hours, and employees, 1972-80
(1977=100)

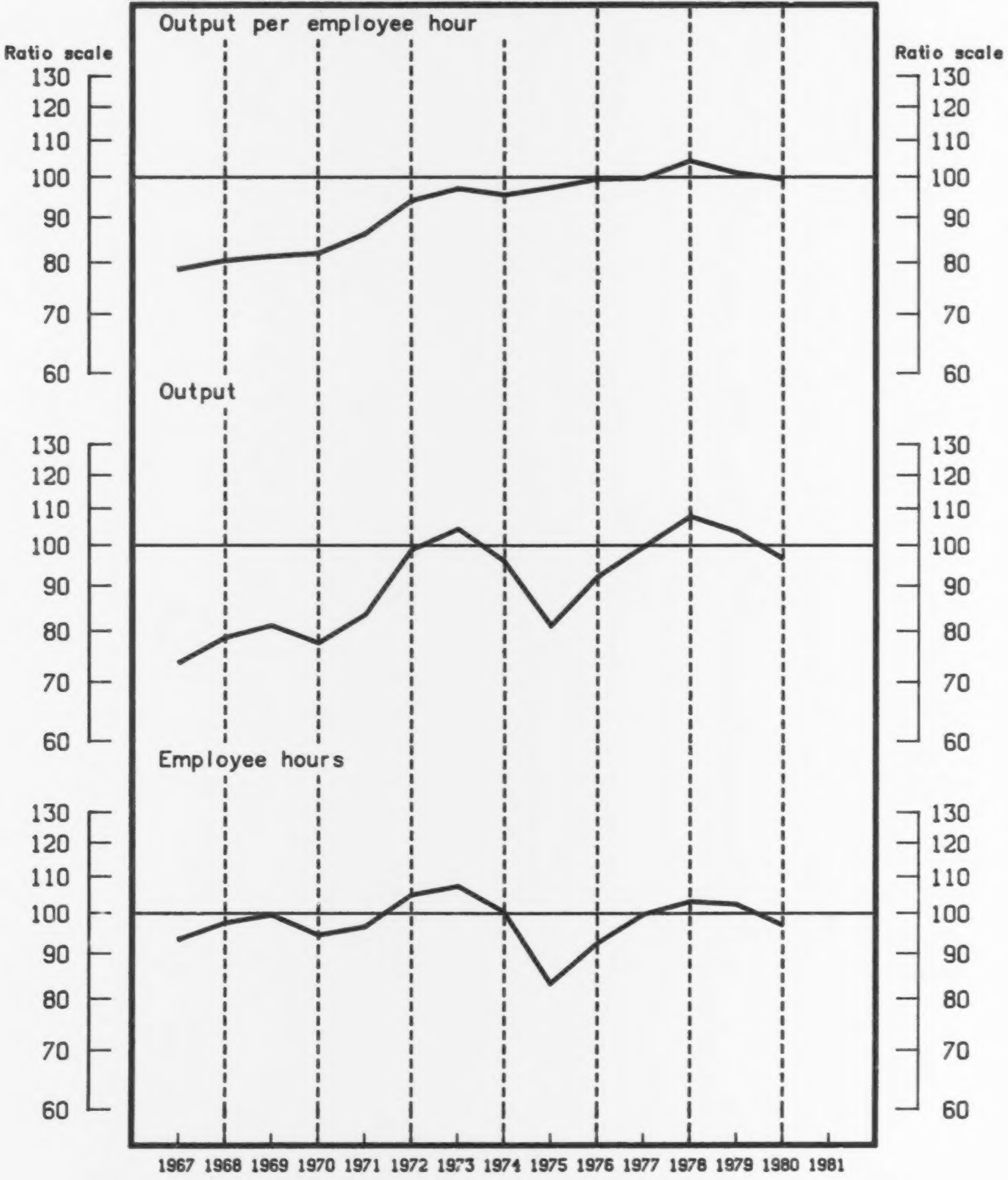
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	92.1	98.5	99.3	91.7	94.7	95.0	92.2
1973	92.2	99.8	98.3	112.9	99.4	97.6	113.7
1974	81.4	89.4	86.7	112.6	92.1	89.5	113.7
1975	82.1	81.7	78.9	105.1	84.6	82.1	105.9
1976	96.9	94.9	94.3	99.8	95.3	94.7	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.8	104.6	103.3	115.7	104.7	103.3	115.7
1979	94.4	101.1	98.0	127.4	103.8	101.0	127.5
1980 [1]	81.2	82.7	79.3	111.8	86.8	83.7	111.8
Average annual percent change:							
1972-80	.5	-.2	-.5	2.0	.3	.1	1.6
1976-80	-4.0	-2.6	-3.6	4.8	-1.5	-2.3	4.8

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 37. Household furniture (SIC 251): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 71. Household furniture (SIC 251): Indexes of output per employee hour and output per employee, 1958-80
(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	65.8	66.2	64.6	67.9	68.3	65.3
1959	67.8	66.8	75.3	72.1	71.4	76.0
1960	67.1	66.4	72.0	70.6	70.2	72.6
1961	67.7	66.9	72.8	70.8	70.4	73.1
1962	69.8	68.6	77.7	74.3	73.7	78.1
1963	73.1	72.0	80.5	77.3	76.6	80.7
1964	74.6	73.6	81.1	79.5	79.0	81.9
1965	77.2	75.6	88.3	82.0	80.8	88.8
1966	78.7	77.0	90.4	83.5	82.4	90.4
1967	78.9	77.2	90.3	82.3	80.9	90.3
1968	80.7	79.8	87.3	85.4	84.0	93.9
1969	81.6	80.6	87.8	85.8	84.5	93.3
1970	82.2	82.2	82.9	85.5	85.1	87.2
1971	86.5	86.3	88.3	89.9	89.8	90.8
1972	94.3	93.7	98.1	96.9	96.6	97.8
1973	97.3	94.7	117.8	99.2	96.8	116.5
1974	95.7	95.9	95.2	95.6	96.0	93.0
1975	97.5	98.4	92.6	94.9	95.5	91.1
1976	99.7	100.2	97.3	99.0	99.2	96.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	104.7	104.3	105.9	106.2	104.2
1979	101.3	102.1	96.6	102.0	102.9	96.9
1980 [2]	99.7	101.5	89.9	99.0	100.6	90.6
Average annual percent change:						
1958-80	2.3	2.4	1.6	2.0	2.0	1.6
1976-80	.1	.5	-1.9	.2	.6	-1.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 72. Household furniture (SIC 251): Indexes of output, employee hours, and employees, 1958-80
(1977 = 100)

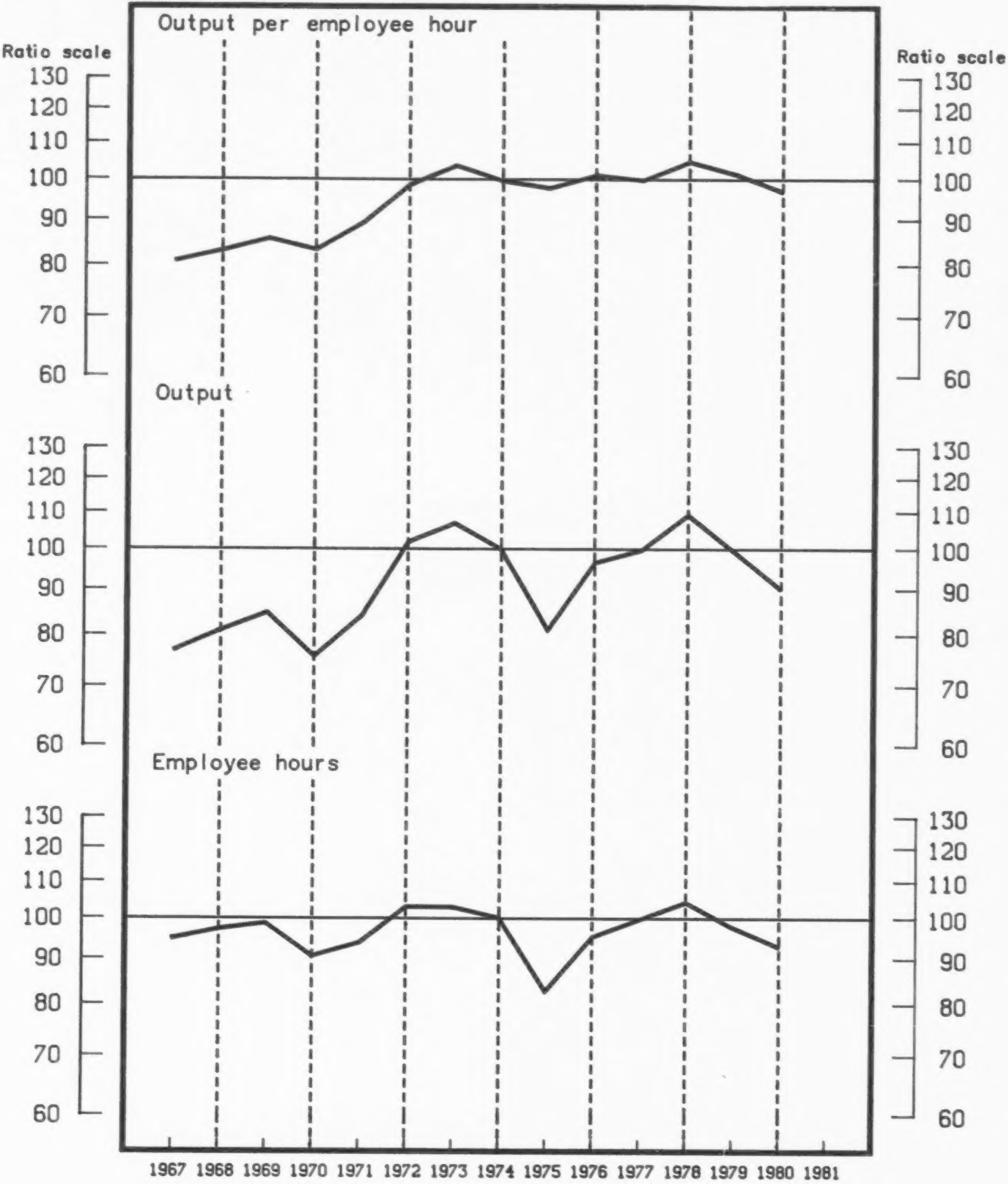
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	51.4	78.1	77.7	79.6	75.7	75.3	78.7
1959	58.6	86.7	88.0	78.1	81.5	82.3	77.4
1960	56.0	83.5	84.4	77.8	79.3	79.8	77.1
1961	54.0	79.8	80.7	74.2	76.3	76.7	73.9
1962	59.3	85.0	86.5	76.3	79.8	80.5	75.9
1963	63.1	86.3	87.6	78.4	81.6	82.2	78.2
1964	67.4	90.3	91.6	83.1	84.8	85.3	82.3
1965	72.7	94.2	96.2	82.3	88.7	90.0	81.9
1966	77.2	98.1	100.2	85.4	92.5	93.7	85.4
1967	73.9	93.7	95.7	81.8	89.8	91.3	81.8
1968	78.9	97.8	98.9	90.4	92.4	93.9	84.0
1969	81.4	99.8	101.0	92.7	94.9	96.3	87.2
1970	77.8	94.7	94.6	93.9	91.0	91.4	89.2
1971	83.7	96.8	97.0	94.8	93.1	93.2	92.2
1972	99.2	105.2	105.9	101.1	102.4	102.7	101.4
1973	104.7	107.6	110.6	88.9	105.5	108.2	89.9
1974	96.3	100.6	100.4	101.2	100.7	100.3	103.6
1975	81.5	83.6	82.8	88.0	85.9	85.3	89.5
1976	92.5	92.8	92.3	95.1	93.4	93.2	95.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.2	103.4	103.3	103.7	102.2	101.9	103.8
1979	103.9	102.6	101.8	107.6	101.9	101.0	107.2
1980 [1]	96.9	97.2	95.4	107.8	97.9	96.3	107.0
Average annual percent change:							
1958-80	3.3	.9	.8	1.6	1.3	1.2	1.6
1976-80	1.3	1.2	.8	3.3	1.1	.8	3.0

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 38. Wood household furniture (SIC 2511, 2517): Output per hour and related data, 1967-80
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

Table 73. Wood household furniture (SIC 2511, 2517): Indexes of output per employee hour and output per employee, 1958-80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	66.4	65.9	69.2	68.1	67.9	70.1
1959	68.4	66.8	82.3	72.5	71.1	83.3
1960	67.9	66.4	80.5	71.3	70.0	81.2
1961	68.3	66.9	78.9	70.9	69.9	79.0
1962	70.5	68.7	86.0	75.5	74.2	86.2
1963	74.8	73.0	91.7	79.7	78.2	92.2
1964	76.4	74.7	90.8	82.7	81.7	91.7
1965	78.9	76.5	101.2	84.7	82.7	101.8
1966	81.0	78.6	102.4	86.9	84.9	102.4
1967	81.1	78.8	100.5	84.5	82.6	100.5
1968	83.3	81.6	96.8	88.6	86.7	104.1
1969	85.9	84.5	97.4	90.5	89.0	103.3
1970	83.5	83.0	86.6	86.6	86.1	91.2
1971	89.5	89.0	92.7	92.2	91.8	95.2
1972	98.8	98.1	104.5	101.5	101.2	104.3
1973	103.9	98.4	179.9	105.8	100.6	178.1
1974	99.8	100.3	95.6	99.2	100.0	93.3
1975	98.0	99.5	87.2	93.1	94.2	85.8
1976	101.3	102.1	94.4	99.1	99.8	94.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	105.8	98.0	105.8	106.9	97.9
1979	101.6	103.1	90.5	101.7	103.3	90.8
1980 [2]	97.1	99.7	80.6	94.2	96.2	81.1
Average annual percent change:						
1958-80	2.2	2.4	.9	1.8	2.0	.8
1976-80	-.7	-.2	-4.1	-.8	-.4	-3.9

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 74. Wood household furniture (SIC 2511, 2517): Indexes of output, employee hours, and employees, 1958-80

(1977=100)

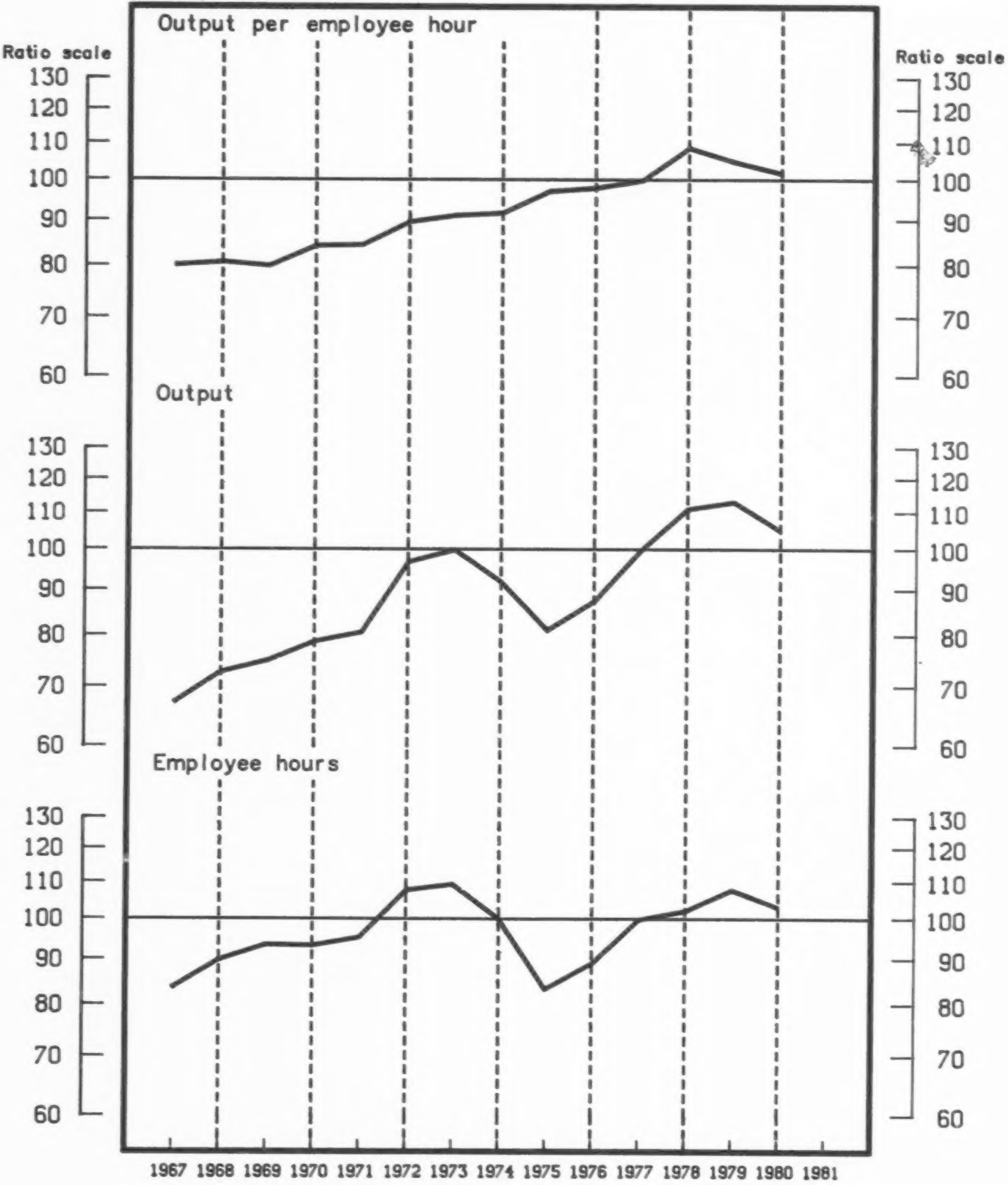
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	49.5	74.6	75.1	71.5	72.7	72.9	70.6
1959	57.7	84.3	86.4	70.1	79.6	81.1	69.3
1960	54.9	80.9	82.7	38.2	77.0	78.4	67.6
1961	52.7	77.2	78.8	66.8	74.3	75.4	66.7
1962	59.4	84.2	86.4	69.1	78.7	80.0	68.9
1963	65.1	87.0	89.2	71.0	81.7	83.3	70.6
1964	69.5	91.0	93.1	76.5	84.0	85.1	75.8
1965	74.9	94.9	97.9	74.0	88.4	90.6	73.6
1966	80.7	99.6	102.7	78.8	92.9	95.0	78.8
1967	77.1	95.1	97.8	76.7	91.2	93.3	76.7
1968	81.2	97.5	99.5	83.9	91.6	93.7	78.0
1969	85.0	99.0	100.6	87.3	93.9	95.5	82.3
1970	75.9	90.9	91.4	87.6	87.6	88.2	83.2
1971	84.2	94.1	94.6	90.8	91.3	91.7	88.4
1972	102.1	103.3	104.1	97.7	100.6	100.9	97.9
1973	107.2	103.2	106.9	59.6	101.3	106.6	60.2
1974	100.2	100.4	99.9	104.8	101.0	100.2	107.4
1975	81.4	83.1	81.8	93.4	87.4	86.4	94.9
1976	96.8	95.6	94.8	102.5	97.7	97.0	102.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.6	104.5	103.6	111.8	103.6	102.5	111.9
1979	99.6	98.0	96.6	110.0	97.9	96.4	109.7
1980 [1]	90.4	93.1	90.7	112.1	96.0	94.0	111.4
Average annual percent change:							
1958-80	3.2	1.0	.8	2.3	1.4	1.2	2.4
1976-80	-1.4	-.7	-1.2	2.8	-.6	-1.0	2.6

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 39. Upholstered household furniture (SIC 2512): Output per hour and related data, 1967-80
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 75. Upholstered household furniture (SIC 2512): Indexes of output per employee hour and output per employee, 1958-80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	71.7	72.2	69.7	75.4	76.4	70.4
1959	73.9	72.9	80.2	80.5	80.5	81.0
1960	72.6	72.3	74.6	78.0	78.6	75.2
1961	74.1	72.5	84.1	79.2	78.3	84.5
1962	74.9	73.2	85.3	81.6	80.9	86.2
1963	76.3	75.6	81.1	81.3	81.3	81.8
1964	78.2	77.3	83.2	82.1	81.9	84.0
1965	80.2	78.8	88.9	85.2	84.7	89.3
1966	81.9	80.5	91.1	86.2	85.6	91.4
1967	80.3	78.8	90.3	85.1	84.4	90.3
1968	80.9	79.4	90.7	86.2	84.5	97.7
1969	60.1	79.1	86.8	85.3	84.4	92.6
1970	84.4	83.5	90.1	89.5	88.7	94.8
1971	84.6	83.4	92.7	91.0	90.4	95.4
1972	89.8	88.8	95.3	94.0	93.8	95.2
1973	91.3	90.8	94.1	94.0	94.1	93.1
1974	91.9	91.1	96.0	92.8	92.7	93.6
1975	97.2	96.6	100.9	97.4	97.0	99.0
1976	98.1	97.6	101.7	98.5	98.1	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.8	108.0	113.1	111.0	110.5	113.0
1979	104.9	103.8	111.5	106.2	105.4	111.6
1980 [2]	101.9	102.3	100.1	105.4	106.3	100.8
Average annual percent change:						
1958-80	1.8	1.9	1.6	1.5	1.5	1.5
1976-80	1.2	1.3	.8	2.0	2.2	1.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 76. Upholstered household furniture (SIC 2512): Indexes of output, employee hours, and employees, 1958-80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	48.5	67.6	67.2	69.6	64.3	63.5	68.9
1959	55.8	75.5	76.5	69.6	69.3	69.3	68.9
1960	54.5	75.1	75.4	73.1	69.9	69.3	72.5
1961	52.8	71.3	72.8	62.8	66.7	67.4	62.5
1962	57.5	76.8	78.5	67.4	70.5	71.1	66.7
1963	58.1	76.1	76.9	71.6	71.5	71.5	71.0
1964	62.7	80.2	81.1	75.4	76.4	76.6	74.6
1965	67.3	83.9	85.4	75.7	79.0	79.5	75.4
1966	70.8	86.4	87.9	77.7	82.1	82.7	77.5
1967	67.4	83.9	85.5	74.6	79.2	79.9	74.6
1968	72.9	90.1	91.8	80.4	84.6	86.3	74.6
1969	75.1	93.7	95.0	86.5	88.0	89.0	81.1
1970	78.9	93.5	94.5	87.6	88.2	89.0	83.2
1971	80.8	95.5	96.9	87.2	88.8	89.4	84.7
1972	97.0	108.0	109.2	101.8	103.2	103.4	101.9
1973	100.1	109.6	110.2	106.4	106.5	106.4	107.5
1974	92.2	100.3	101.2	96.0	99.4	99.5	98.5
1975	81.3	83.6	84.2	80.6	83.5	83.8	82.1
1976	87.6	89.3	89.8	86.1	88.9	89.3	86.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.3	102.3	103.1	98.4	100.3	100.7	98.5
1979	113.3	108.0	109.2	101.6	106.7	107.5	101.5
1980 [1]	105.3	103.3	102.9	105.2	99.9	99.1	104.5
Average annual percent change:							
1958-80	3.7	1.8	1.8	2.1	2.2	2.2	2.2
1976-80	5.1	3.8	3.7	4.3	3.0	2.8	4.0

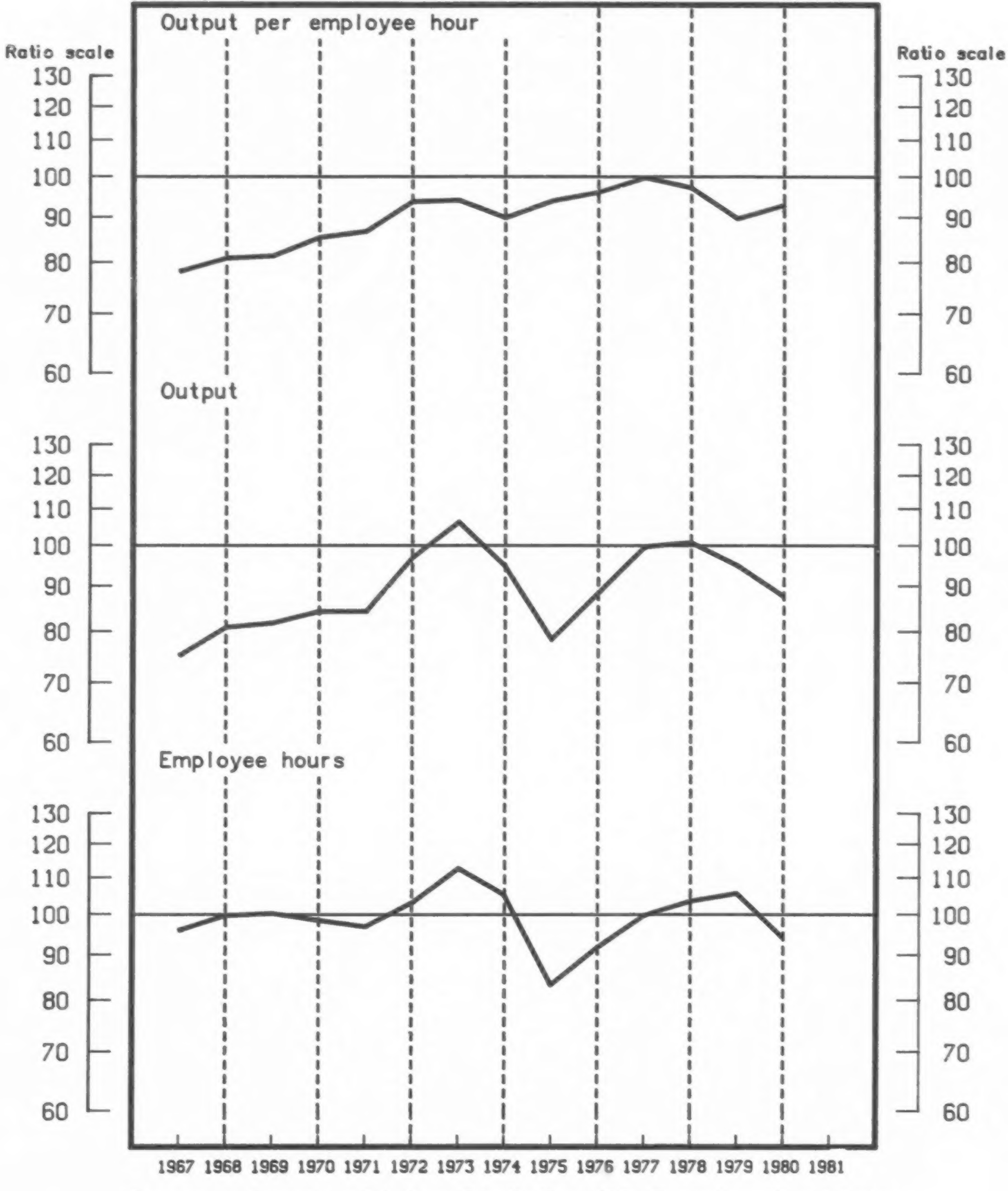
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 40. Metal household furniture (SIC 2514): Output per hour and related data, 1967-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 77. Metal household furniture (SIC 2514): Indexes of output per employee hour and output per employee, 1958-80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	66.7	67.5	63.6	69.1	70.2	64.1
1959	67.0	65.1	77.4	70.4	68.9	78.3
1960	64.6	63.4	71.3	67.7	66.9	72.1
1961	65.6	64.4	72.3	68.2	67.4	72.2
1962	68.9	67.2	78.1	71.7	70.3	78.6
1963	73.8	72.8	78.4	76.6	76.2	78.3
1964	74.2	73.1	80.2	77.7	77.0	81.2
1965	77.5	76.5	82.4	80.5	80.0	82.7
1966	75.8	75.3	78.2	79.9	80.3	78.0
1967	78.4	77.3	83.9	80.7	80.0	84.1
1968	81.1	81.8	78.2	84.0	83.9	84.0
1969	81.6	80.7	86.0	83.0	81.3	91.4
1970	85.6	86.5	81.5	86.6	86.7	86.0
1971	87.0	87.7	83.7	89.0	89.7	86.0
1972	94.0	93.4	97.2	93.8	93.1	97.2
1973	94.3	93.4	99.3	95.9	95.4	98.1
1974	90.1	91.2	85.6	89.2	90.5	83.6
1975	94.1	96.9	83.3	92.4	94.9	81.5
1976	96.3	97.7	90.3	96.5	98.0	90.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.4	96.6	101.1	98.4	97.9	101.1
1979	89.9	90.8	85.7	91.9	93.2	86.2
1980 [2]	93.1	92.9	93.9	92.3	91.9	94.4
Average annual percent change:						
1958-80	2.0	2.1	1.4	1.8	1.8	1.4
1976-80	-1.7	-2.0	-.8	-1.7	-2.0	-.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 78. Metal household furniture (SIC 2514): Indexes of output, employee hours, and employees, 1958-80

(1977=100)

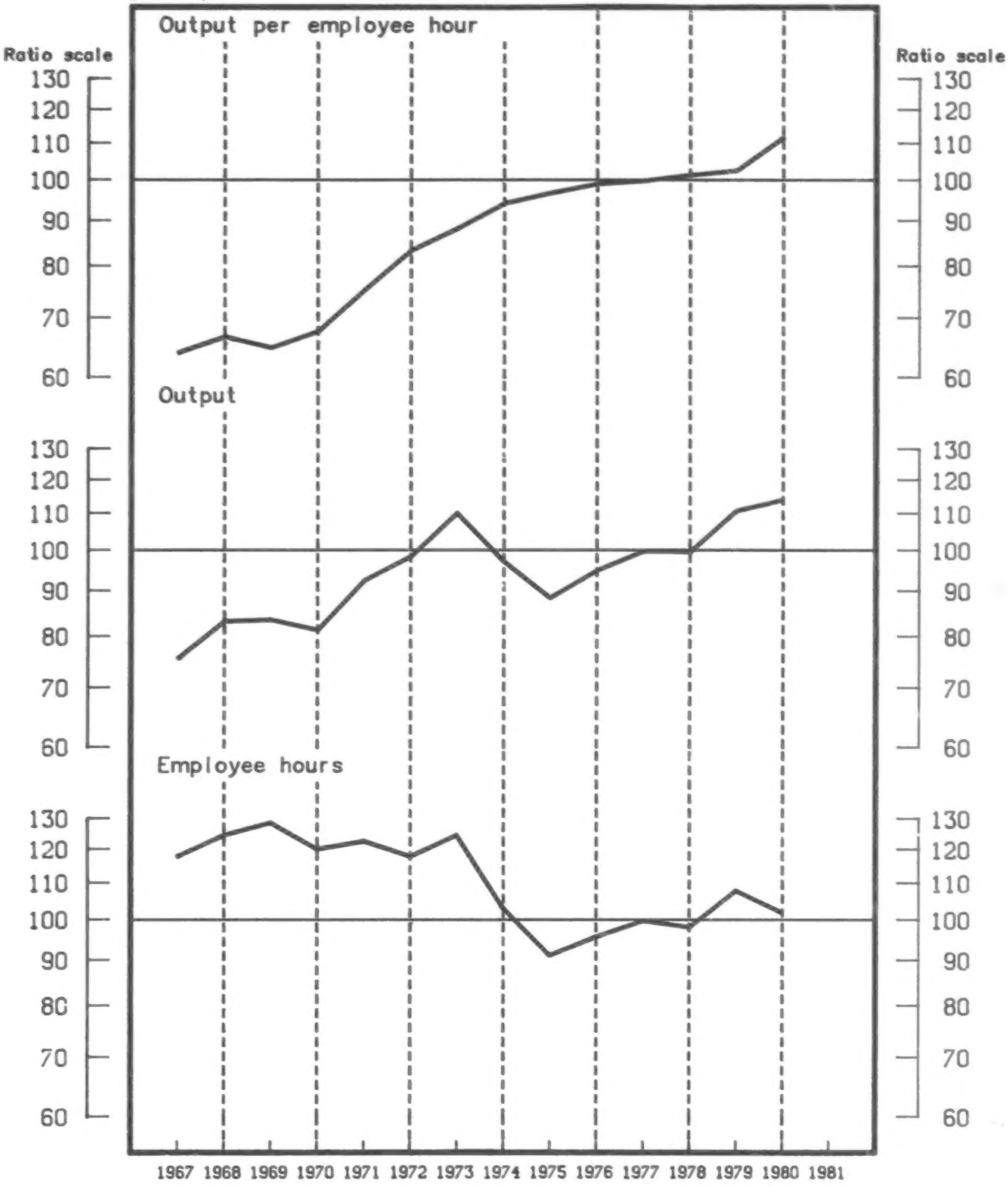
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	63.0	94.4	93.4	99.1	91.2	89.7	98.3
1959	68.9	102.9	105.8	89.0	97.9	100.0	88.0
1960	64.7	100.2	102.1	90.8	95.5	96.7	89.7
1961	61.0	93.0	94.7	84.4	89.4	90.5	84.5
1962	62.4	90.6	92.8	79.9	87.0	86.7	79.4
1963	67.6	91.6	92.8	86.2	88.2	88.7	86.3
1964	72.8	98.1	99.6	90.8	93.7	94.5	89.7
1965	75.6	97.6	98.8	91.7	93.9	94.5	91.4
1966	75.3	99.3	100.0	96.3	94.3	93.8	96.6
1967	75.4	96.2	97.5	89.9	93.4	94.2	89.7
1968	81.1	100.0	99.2	103.7	96.6	96.7	96.6
1969	82.0	100.5	101.6	95.4	98.8	100.8	89.7
1970	84.5	98.7	97.7	103.7	97.6	97.5	98.3
1971	84.5	97.1	96.3	100.9	94.9	94.2	98.3
1972	97.2	103.4	104.1	100.0	103.6	104.4	100.0
1973	106.6	113.0	114.1	107.4	111.1	111.7	108.7
1974	95.1	105.5	104.3	111.1	106.6	105.1	113.8
1975	78.7	83.6	81.2	94.5	85.2	82.9	96.6
1976	88.7	92.1	90.8	98.2	91.9	90.5	98.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.1	103.8	104.7	100.0	102.7	103.3	100.0
1979	95.2	105.9	104.9	111.1	103.6	102.2	110.4
1980 [1]	87.9	94.4	94.6	93.6	95.2	95.6	93.1
Average annual percent change:							
1958-80	2.2	.2	.1	.8	.4	.4	.8
1976-80	-.7	1.1	1.3	.1	1.1	1.3	-.1

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 41. Mattresses and bedsprings (SIC 2515): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 79. Mattresses and bedsprings (SIC 2515): Indexes of output per employee hour and output per employee, 1958–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	51.2	50.0	55.1	51.9	50.9	55.8
1959	51.9	50.5	56.7	53.9	53.0	57.1
1960	53.2	52.7	54.8	54.6	54.3	55.6
1961	53.1	53.2	52.3	55.0	55.8	52.5
1962	55.5	55.4	55.6	57.1	57.5	56.1
1963	57.5	56.9	59.4	59.4	59.4	59.8
1964	59.1	58.8	59.8	61.0	61.2	60.2
1965	61.3	60.2	65.2	63.4	62.7	65.6
1966	62.4	60.6	69.1	64.2	62.8	69.1
1967	64.1	62.2	71.0	65.5	63.9	71.2
1968	66.8	65.9	69.6	70.1	68.7	75.2
1969	64.9	63.7	68.8	68.2	66.9	73.4
1970	67.7	67.2	69.0	70.5	69.9	72.4
1971	75.4	74.3	78.9	77.2	76.0	81.2
1972	83.5	82.3	87.6	84.8	83.9	87.6
1973	88.4	86.1	96.8	88.7	86.7	95.5
1974	94.3	92.4	100.8	93.2	91.5	99.0
1975	96.9	94.9	104.2	95.7	93.6	103.0
1976	99.2	98.3	101.9	99.5	99.0	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.5	100.0	106.1	100.8	99.3	106.5
1979	102.7	103.5	99.5	104.0	105.4	100.1
1980 [2]	111.9	114.5	103.8	110.9	113.1	104.4
Average annual percent change:						
1958-80	3.9	3.9	3.7	3.7	3.7	3.6
1976-80	2.7	3.5	.3	2.6	3.2	.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 80. Mattresses and bedsprings (SIC 2515): Indexes of output, employee hours, and employees, 1958–80

(1977 = 100)

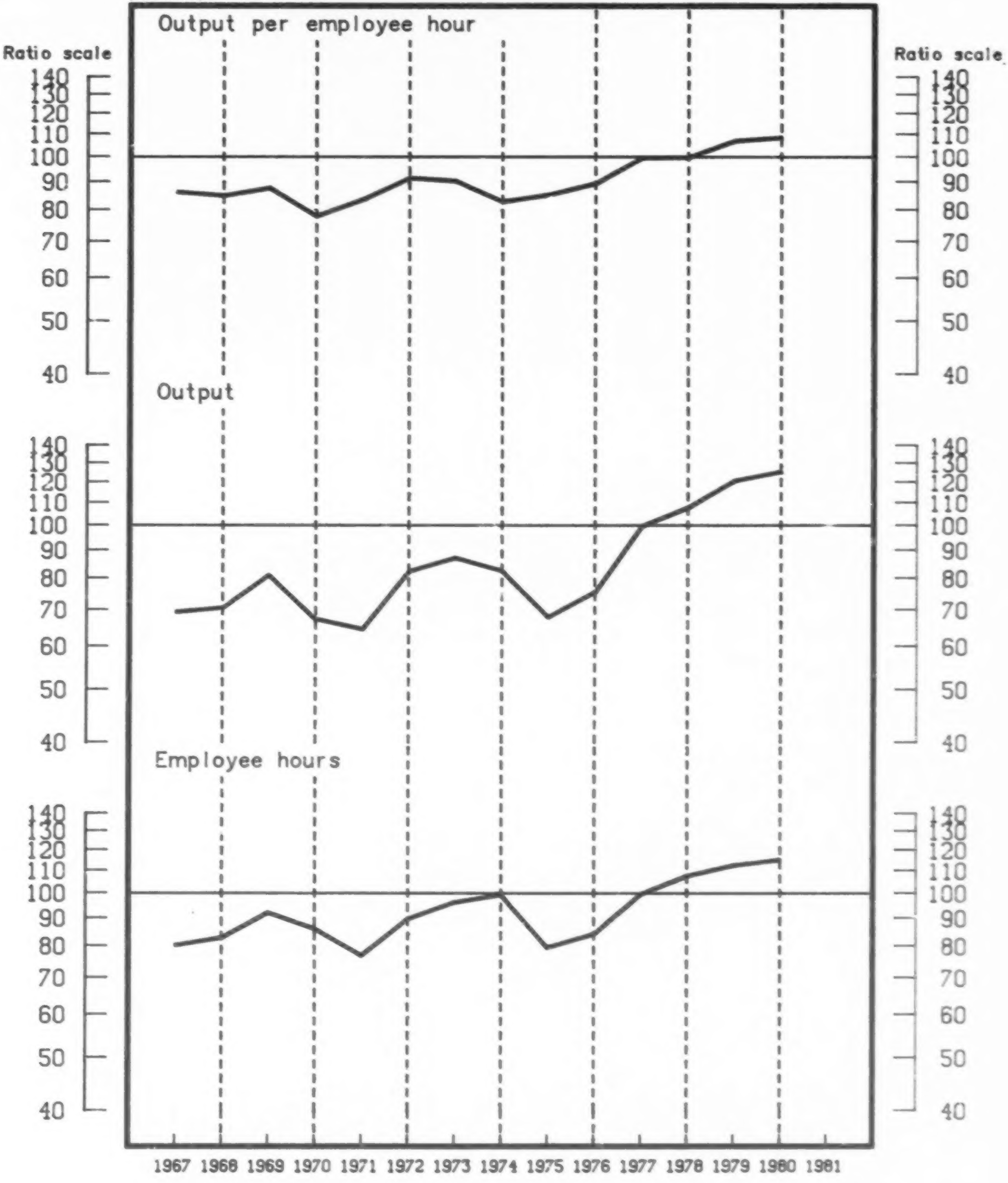
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	61.0	119.2	121.9	110.8	117.5	119.9	109.4
1959	65.1	125.5	128.8	114.9	120.8	122.9	114.1
1960	61.7	115.9	117.0	112.5	113.1	113.6	110.9
1961	61.5	115.9	115.6	117.5	111.9	110.2	117.2
1962	66.7	120.2	120.4	119.9	116.8	116.1	118.8
1963	66.3	115.3	116.5	111.6	111.6	111.7	110.9
1964	68.7	116.3	116.8	114.9	112.6	112.2	114.1
1965	74.9	122.2	124.5	114.9	118.2	119.4	114.1
1966	76.6	122.8	126.5	110.8	119.3	121.9	110.9
1967	75.7	118.1	121.7	106.6	115.6	118.5	106.3
1968	83.4	124.9	126.5	119.9	119.0	121.4	110.9
1969	83.7	128.9	131.3	121.6	122.7	125.2	114.1
1970	81.5	120.4	121.2	118.2	115.6	116.6	112.5
1971	92.7	122.9	124.7	117.5	120.0	121.9	114.1
1972	98.6	118.1	119.8	112.5	116.3	117.5	112.5
1973	110.4	124.9	128.2	114.1	124.5	127.3	115.6
1974	97.4	103.3	105.4	96.6	104.5	106.4	98.4
1975	88.6	91.4	93.4	85.0	92.6	94.7	86.0
1976	95.1	95.9	96.7	93.3	95.6	96.1	93.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.8	98.3	99.8	94.1	99.0	100.5	93.7
1979	111.0	108.1	107.2	111.6	106.7	105.3	110.9
1980 [1]	114.2	102.1	99.7	110.0	103.0	101.0	109.4
Average annual percent change:							
1958-80	2.9	-.9	-1.0	-.7	-.7	-.8	-.7
1976-80	4.8	2.1	1.3	4.5	2.2	1.5	4.2

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 42. Office furniture (SIC 252): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 81. Office furniture (SIC 252): Indexes of output per employee hour and output per employee, 1958–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	64.0	62.0	73.2	63.9	61.5	74.5
1959	69.8	66.6	85.0	70.9	67.4	86.4
1960	70.4	67.0	86.2	72.0	68.8	86.6
1961	72.5	69.8	84.0	74.1	71.6	84.4
1962	74.4	71.5	88.1	75.4	72.5	88.6
1963	75.9	72.7	90.3	77.7	74.8	90.3
1964	82.1	80.0	90.9	84.7	82.9	91.4
1965	84.2	81.1	98.1	88.6	86.2	98.1
1966	86.7	83.0	103.5	90.9	88.0	103.3
1967	86.5	84.2	96.0	89.1	87.3	95.9
1968	85.2	84.8	86.8	90.1	89.2	93.5
1969	88.0	89.2	84.1	91.6	92.2	89.5
1970	78.2	79.4	74.0	81.7	82.9	77.8
1971	83.9	86.6	75.3	86.5	89.5	77.3
1972	91.8	91.7	92.1	94.7	95.5	92.0
1973	90.6	89.9	93.0	92.7	92.8	92.2
1974	83.1	80.7	93.5	83.8	82.0	91.2
1975	85.5	87.4	76.8	83.4	85.1	77.6
1976	89.7	91.2	84.4	88.6	89.9	84.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.1	99.6	102.1	100.3	99.8	101.9
1979	107.3	106.6	109.9	109.2	109.0	110.0
1980 [2]	108.9	114.5	92.2	106.3	110.7	93.0
Average annual percent change:						
1958-80	1.8	2.1	.6	1.7	2.0	.5
1976-80	4.7	5.3	2.7	4.6	5.2	3.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 82. Office furniture (SIC 252): Indexes of output, employee hours, and employees, 1958–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	33.1	51.7	53.4	45.2	51.8	53.8	44.4
1959	37.5	53.7	56.3	44.1	52.9	55.6	43.4
1960	39.4	56.0	58.8	45.7	54.7	57.3	45.5
1961	38.4	53.0	55.0	45.7	51.8	53.6	45.5
1962	42.1	56.6	58.9	47.8	55.8	58.1	47.5
1963	45.6	60.1	62.7	50.5	58.7	61.0	50.5
1964	50.8	61.9	63.5	55.9	60.0	61.3	55.6
1965	57.5	68.3	70.9	58.6	64.9	66.7	58.6
1966	67.9	78.3	81.8	65.6	74.7	77.2	65.7
1967	69.7	80.6	82.8	72.6	78.2	79.8	72.7
1968	70.9	83.2	83.6	81.7	78.7	79.5	75.8
1969	81.4	92.5	91.3	96.8	88.9	88.3	90.9
1970	67.6	86.4	85.1	91.4	82.7	81.5	86.9
1971	64.8	77.2	74.8	86.0	74.9	72.4	83.8
1972	82.7	90.1	90.2	89.8	87.3	86.6	89.9
1973	87.5	96.6	97.3	94.1	94.4	94.3	94.9
1974	82.9	99.8	102.7	88.7	98.9	101.1	90.9
1975	68.2	79.8	78.0	86.6	81.8	80.1	87.9
1976	75.8	84.5	83.1	89.8	85.6	84.3	89.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.1	108.0	108.5	105.9	107.8	108.3	106.1
1979	121.1	112.9	113.6	110.2	110.9	111.1	110.1
1980 [1]	125.9	115.6	110.0	136.6	118.4	113.7	135.4
Average annual percent change:							
1958-80	5.5	3.6	3.3	4.9	3.8	3.4	5.0
1976-80	12.8	7.8	7.1	9.8	7.8	7.3	9.6

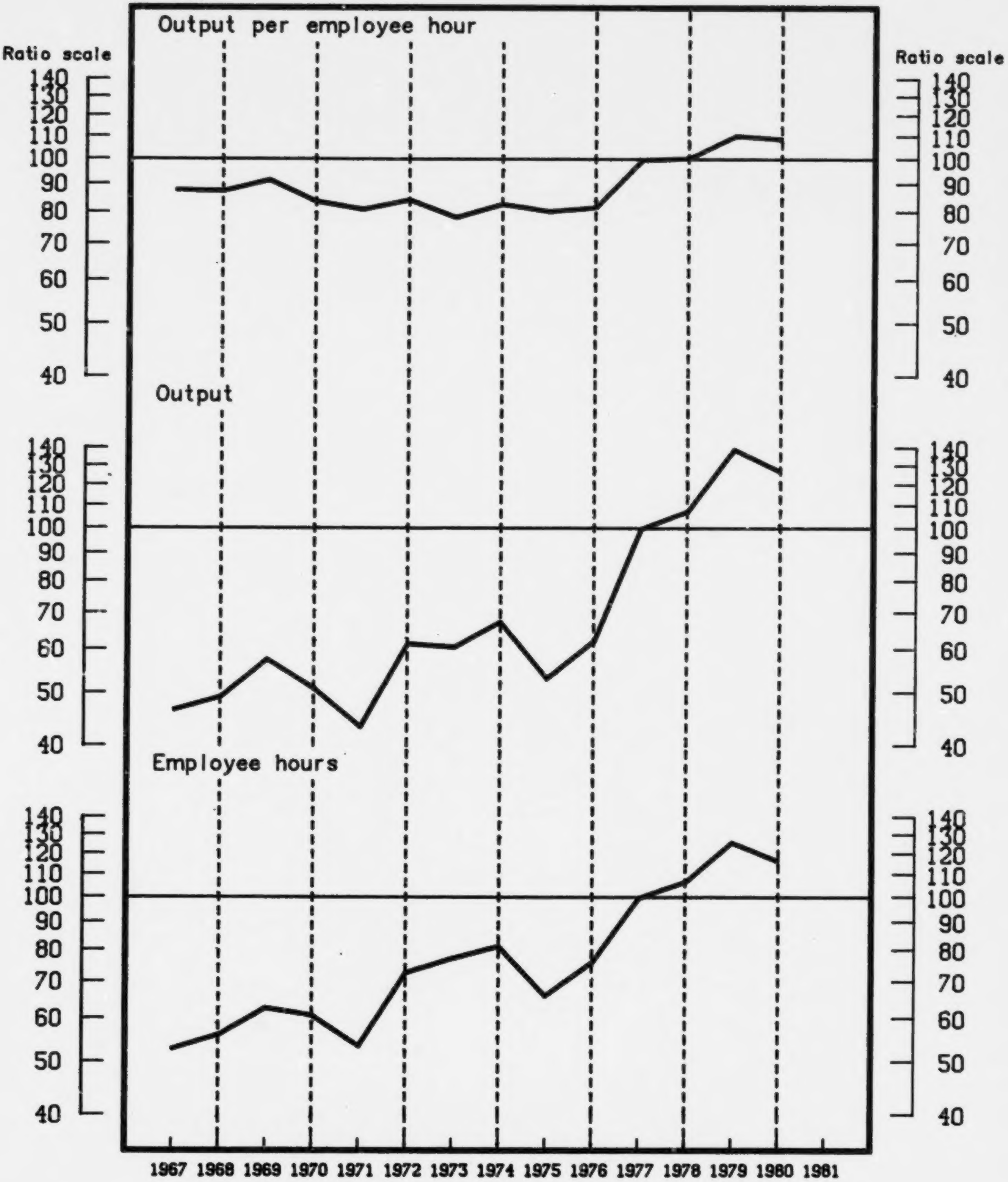
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 43. Wood office furniture (SIC 2521): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 83. Wood office furniture (SIC 2521): Indexes of output per employee hour and output per employee, 1958–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	67.1	62.5	96.0	67.7	62.7	98.0
1959	69.5	64.2	109.6	71.9	66.2	109.6
1960	68.0	63.7	96.1	71.4	67.0	96.8
1961	70.5	66.1	97.2	74.5	70.3	97.9
1962	69.9	64.8	104.2	74.9	69.9	105.0
1963	80.4	74.5	121.9	85.0	78.8	122.8
1964	84.5	79.2	116.7	88.3	83.1	118.6
1965	82.6	78.8	105.7	86.4	82.3	108.0
1966	85.9	81.5	112.5	88.3	83.5	114.9
1967	88.1	83.2	116.8	91.2	86.6	115.0
1968	87.7	83.3	113.9	95.0	90.1	121.4
1969	91.9	88.8	108.4	97.3	93.7	115.6
1970	83.9	79.6	109.6	85.3	79.9	116.9
1971	81.2	78.3	96.9	80.1	78.5	99.5
1972	84.5	81.1	102.8	85.8	82.3	103.9
1973	78.5	74.[illegible]	98.5	78.5	74.9	97.3
1974	83.0	78.4	109.7	80.8	76.0	108.3
1975	80.5	78.3	91.6	73.7	70.4	89.9
1976	81.9	79.2	96.0	76.0	74.6	95.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	103.3	91.0	98.4	100.7	90.7
1979	110.7	113.9	98.7	111.3	114.7	99.4
1980 [2]	109.2	117.4	84.0	100.5	105.3	85.0
Average annual percent change:						
1958-80	1.7	2.2	-.6	1.2	1.6	-.7
1976-80	7.0	9.6	-2.6	6.3	6.6	-2.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 84. Wood office furniture (SIC 2521): Indexes of output, employee hours, and employees, 1958–80

(1977=100)

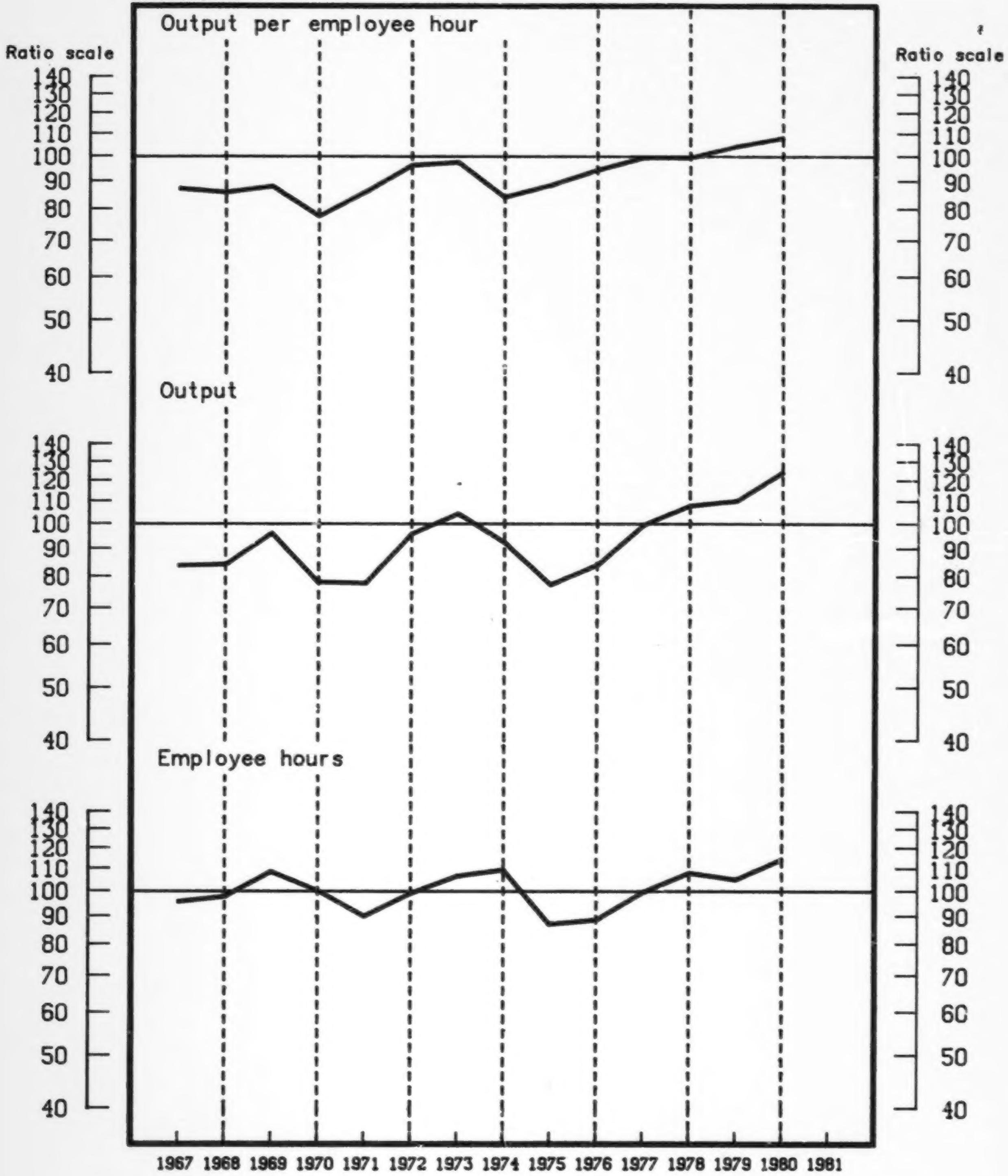
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	24.5	36.5	39.2	25.0	36.2	39.1	25.0
1959	27.4	39.4	42.7	25.0	38.1	41.4	25.0
1960	27.2	40.0	42.7	28.3	38.1	40.6	28.1
1961	27.5	39.0	41.6	28.3	36.9	39.1	28.1
1962	29.5	42.2	45.5	28.3	39.4	42.2	28.1
1963	34.5	42.9	46.3	28.3	40.6	43.8	28.1
1964	37.0	43.8	46.7	31.7	41.9	44.5	31.2
1965	40.5	48.9	51.4	38.3	46.9	49.2	37.5
1966	43.1	50.2	52.9	38.3	48.8	51.6	37.5
1967	46.7	53.0	56.1	40.0	51.2	53.9	40.6
1968	49.3	56.2	59.2	43.3	51.9	54.7	40.6
1969	57.8	62.9	65.1	53.3	59.4	61.7	50.0
1970	51.2	61.0	64.3	46.7	60.0	64.1	43.8
1971	43.6	53.7	55.7	45.0	54.4	57.0	43.8
1972	61.7	73.0	76.1	60.0	71.9	75.0	59.4
1973	60.8	77.5	81.2	61.7	77.5	81.2	62.5
1974	67.7	81.6	86.3	61.7	83.8	89.1	62.5
1975	53.4	66.3	88.2	58.3	72.5	75.8	59.4
1976	62.4	76.2	78.8	65.0	80.0	83.6	65.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.7	107.0	104.3	118.3	109.4	107.0	118.8
1979	139.0	126.3	122.7	141.7	125.6	121.9	140.6
1980 [1]	127.5	116.8	106.6	151.7	126.9	121.1	150.0
Average annual percent change:							
1958-80	7.2	5.5	5.0	7.9	6.0	5.5	6.0
1976-80	19.3	11.5	6.8	22.7	12.2	9.8	22.1

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 44. Metal office furniture (SIC 2522): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 85. Metal office furniture (SIC 2522): Indexes of output per employee hour and output per employee, 1958–80
(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	64.5	62.7	71.7	64.2	62.1	72.1
1959	71.6	68.7	84.2	72.3	69.2	79.9
1960	72.7	69.3	87.4	74.0	70.7	87.9
1961	74.7	72.5	84.3	75.8	73.5	84.7
1962	77.9	75.4	88.1	77.6	74.7	88.7
1963	75.9	73.4	86.7	77.3	74.8	86.6
1964	82.9	81.5	88.6	85.4	84.3	89.0
1965	86.3	83.2	99.3	91.6	89.3	99.7
1966	88.3	84.5	104.9	93.6	90.6	105.3
1967	87.6	85.6	95.6	90.4	89.0	95.6
1968	86.2	86.4	85.3	90.6	90.3	91.5
1969	88.5	90.5	82.2	91.8	93.2	87.5
1970	78.0	80.8	69.7	82.5	85.8	73.0
1971	86.4	90.8	74.0	90.6	96.2	75.8
1972	96.7	97.9	92.6	100.4	103.2	92.2
1973	97.9	98.2	96.4	101.0	102.9	94.9
1974	84.5	82.7	91.4	86.7	85.9	88.9
1975	88.9	92.8	77.7	89.4	94.2	76.6
1976	94.8	98.6	83.7	95.3	99.5	83.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	97.7	108.4	101.4	98.6	108.4
1979	104.8	102.1	115.2	107.6	105.4	115.8
1980 [2]	108.6	112.6	96.4	109.7	114.1	97.2
Average annual percent change:						
1958-80	1.8	2.1	.8	1.8	2.1	.8
1976-80	3.2	2.9	4.3	3.6	3.3	4.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 86. Metal office furniture (SIC 2522): Indexes of output, employee hours, and employees, 1958–80
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	38.7	60.0	61.7	54.0	60.3	62.3	53.7
1959	44.1	61.6	64.2	52.4	61.0	63.7	55.2
1960	47.2	64.9	68.1	54.0	63.8	66.8	53.7
1961	45.5	60.9	62.8	54.0	60.0	61.9	53.7
1962	50.3	64.6	66.7	57.1	64.8	67.3	56.7
1963	53.0	69.8	72.2	61.1	68.6	70.9	61.2
1964	59.8	72.1	73.4	67.5	70.0	70.9	67.2
1965	68.5	79.4	82.3	69.0	74.8	76.7	68.7
1966	83.3	94.3	98.6	79.4	89.0	91.9	79.1
1967	84.2	96.1	98.4	88.1	93.1	94.6	88.1
1968	84.6	98.2	97.9	99.2	93.4	93.7	92.5
1969	96.6	109.1	106.7	117.5	105.2	103.6	110.4
1970	78.5	100.7	97.2	112.7	95.2	91.5	107.5
1971	78.1	90.4	86.0	105.6	86.2	81.2	103.0
1972	96.3	99.6	98.4	104.0	95.9	93.3	104.5
1973	104.8	107.1	106.7	108.7	103.8	101.8	110.4
1974	92.9	110.0	112.4	101.6	107.2	108.1	104.5
1975	77.7	87.4	83.7	100.0	86.9	82.5	101.5
1976	84.4	89.0	85.6	100.8	88.6	84.8	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.4	108.5	111.0	100.0	106.9	109.9	100.0
1979	110.6	105.5	108.3	96.0	102.8	104.9	95.5
1980 [1]	124.8	114.9	110.8	129.4	113.8	109.4	128.4
Average annual percent change:							
1958-80	4.6	2.8	2.5	3.9	2.8	2.5	3.8
1976-80	9.2	5.6	6.1	4.7	5.4	5.7	4.3

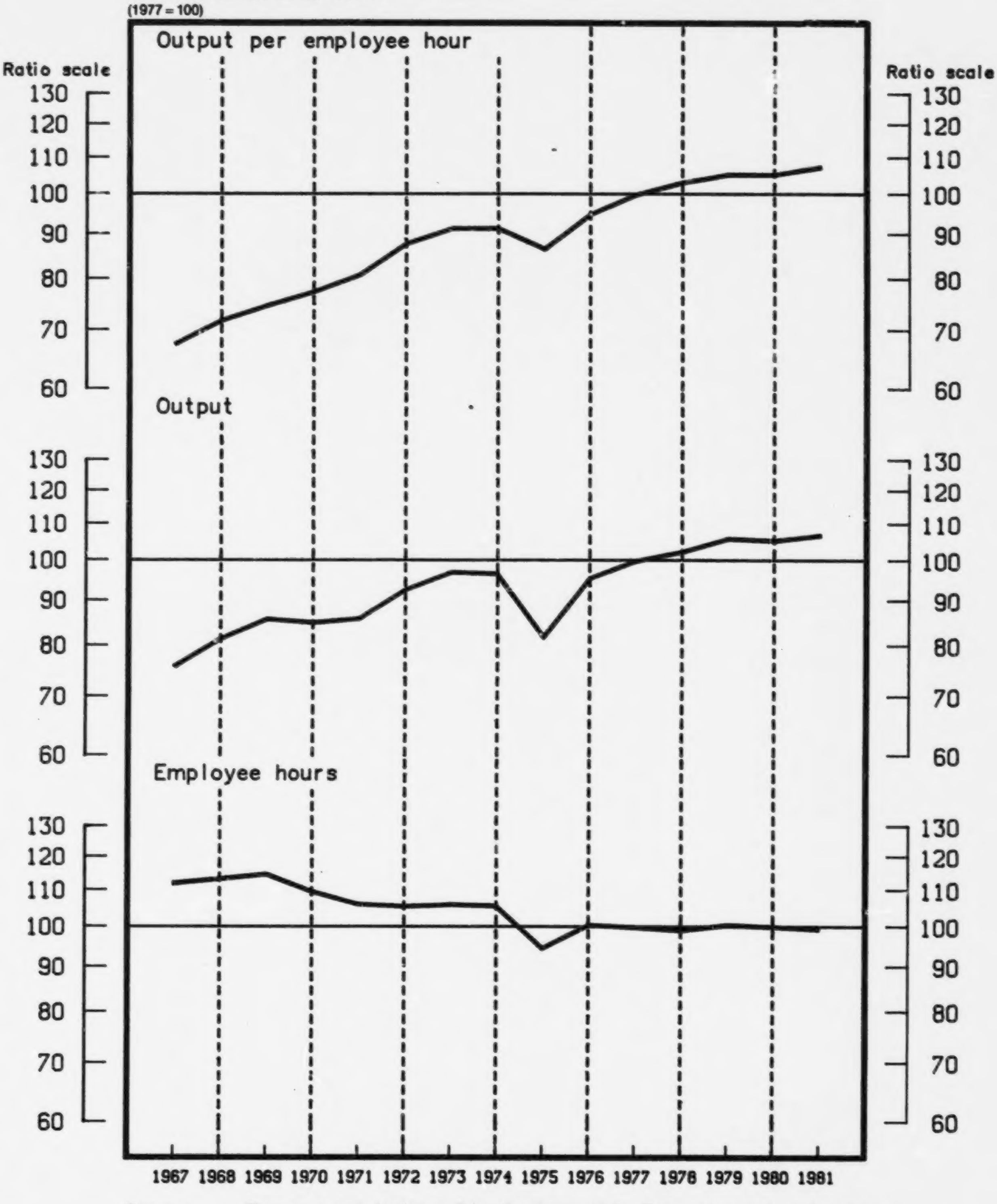
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 45. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 87. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output per employee hour and output per employee, 1954–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	40.4	37.9	56.3	42.5	39.8	58.3
1955	43.2	40.4	62.4	46.4	43.2	64.2
1956	45.1	42.5	61.2	48.2	45.2	63.2
1957	45.1	42.9	57.8	47.0	44.4	59.6
1958	46.2	44.1	58.2	47.9	45.2	60.0
1959	49.0	46.9	60.8	51.8	49.5	62.6
1960	50.6	48.8	59.8	52.9	50.9	61.6
1961	53.9	52.2	62.3	56.2	54.3	63.9
1962	56.0	54.2	65.4	58.5	56.5	67.3
1963	59.3	57.4	68.7	62.0	60.0	70.6
1964	62.3	60.3	73.1	65.8	63.6	75.5
1965	65.4	63.7	74.6	68.8	66.9	76.7
1966	68.7	66.9	78.1	72.8	70.9	79.9
1967	67.6	66.1	75.0	70.7	69.3	78.7
1968	71.9	69.9	82.3	75.8	73.7	84.0
1969	74.8	72.5	86.0	78.7	76.6	86.5
1970	77.5	75.8	85.7	79.5	78.0	85.1
1971	81.0	80.1	85.1	83.6	82.8	86.3
1972	87.9	86.7	93.1	91.8	90.5	96.0
1973	91.5	90.2	98.3	94.9	93.2	101.6
1974	91.5	90.5	95.2	93.6	92.4	98.2
1975	86.7	87.7	82.3	85.9	86.1	84.3
1976	95.0	95.0	95.1	95.9	95.6	96.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.2	103.7	101.1	103.5	104.3	101.1
1979	105.4	106.2	102.2	105.6	106.4	102.6
1980	105.4	106.6	100.7	105.9	107.1	101.5
1981 [2]	107.5	108.2	104.5	108.2	109.1	104.9
Average annual percent change:						
1947-81	3.8	4.1	2.1	3.6	3.9	2.0
1976-81	2.3	2.5	1.4	2.3	2.6	1.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 88. Paper, paperboard, and pulp mills (SIC 2611, 2621, 2631, 2661): Indexes of output, employee hours, and employees, 1954–81

(1977 = 100)

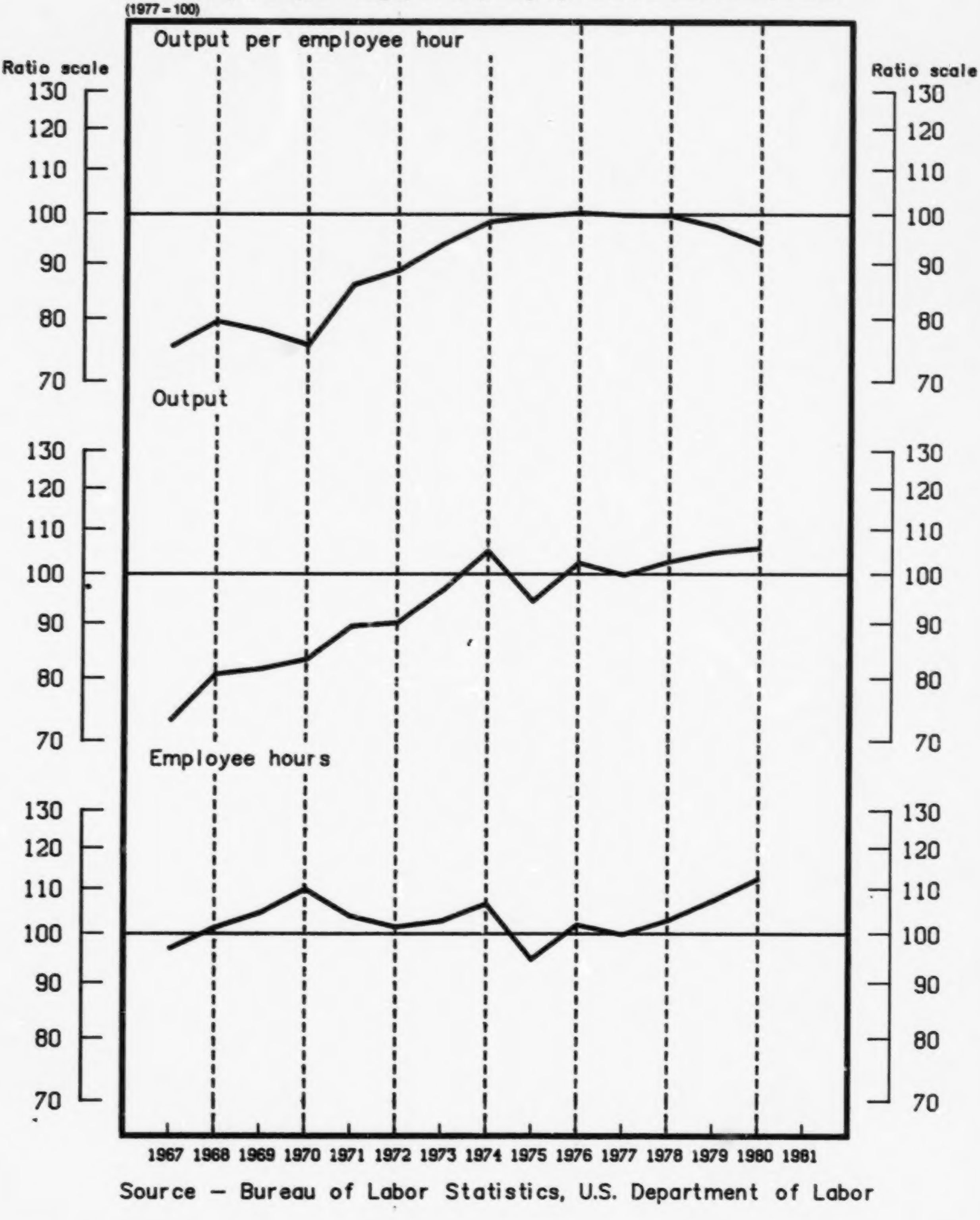
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	41.4	102.5	109.1	73.5	97.4	104.6	71.0
1955	46.4	107.3	114.9	74.4	100.0	107.5	72.3
1956	49.2	109.1	115.7	80.4	102.1	108.8	77.9
1957	47.9	106.3	111.7	82.9	102.0	107.9	80.4
1958	48.1	104.2	109.1	82.6	100.5	106.3	80.1
1959	53.6	109.4	114.4	88.1	103.4	108.3	85.6
1960	54.8	108.3	112.2	91.8	103.6	107.7	89.0
1961	56.5	104.9	108.3	90.7	100.6	104.1	88.4
1962	59.5	106.3	109.8	91.0	101.7	105.4	88.4
1963	62.7	105.8	109.2	91.3	101.1	104.5	88.8
1964	66.7	107.0	110.6	91.3	101.3	104.8	88.4
1965	70.6	107.9	110.9	94.7	102.6	105.6	92.1
1966	76.1	110.8	113.8	97.5	104.6	107.3	95.3
1967	75.9	112.2	114.8	101.2	107.3	109.6	98.9
1968	81.6	113.5	116.8	99.2	107.7	110.7	97.1
1969	85.9	114.9	118.5	99.9	109.2	112.1	99.3
1970	85.1	109.8	112.2	99.3	107.1	109.1	100.0
1971	86.0	106.2	107.3	101.0	102.9	103.9	99.6
1972	92.8	105.6	107.0	99.7	101.3	102.5	96.7
1973	97.1	106.1	107.7	98.6	102.3	104.2	95.6
1974	96.7	105.7	106.8	101.6	103.3	104.7	98.5
1975	82.1	94.7	93.6	99.7	95.6	95.3	97.4
1976	95.6	100.6	100.6	100.5	99.7	100.0	98.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.4	99.2	98.7	101.3	98.9	98.2	101.3
1979	106.0	100.6	99.8	103.7	100.4	99.6	103.3
1980	105.5	100.1	99.0	104.8	99.6	98.5	103.9
1981 [1]	107.0	99.5	98.9	102.4	98.9	98.1	102.0
Average annual percent change:							
1947-81	3.9	.1	–.2	1.7	.3	–.1	1.8
1976-81	2.2	–.1	–.3	.7	–.1	–.4	.8

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 46. Paper and plastic bags (SIC 2643): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 89. Paper and plastic bags (SIC 2643): Indexes of output per employee hour and output per employee, 1954–80
(1977=100)

Year	Output per hour[1]			Output per employee[1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	55.2	53.0	66.6	56.2	53.6	69.1
1955	57.9	55.7	69.4	59.7	57.2	71.7
1956	55.5	54.2	61.8	56.2	54.5	64.0
1957	58.5	55.2	62.7	57.8	56.2	64.9
1958	57.6	56.9	61.0	58.0	56.9	63.0
1959	60.4	60.0	62.3	61.1	60.3	64.1
1960	61.1	60.3	64.9	58.7	56.9	67.0
1961	65.0	63.8	70.4	64.1	62.3	72.5
1962	66.7	65.5	72.2	65.9	64.0	74.3
1963	69.7	68.8	73.6	70.5	69.3	75.8
1964	69.3	66.7	71.7	71.2	70.5	74.2
1965	72.7	72.6	73.1	74.4	74.1	75.4
1966	72.4	71.9	74.6	75.0	74.7	76.3
1967	75.6	75.2	77.2	77.1	76.7	78.9
1968	79.7	78.9	83.2	83.1	82.6	85.2
1969	76.1	78.2	78.0	80.4	80.8	78.6
1970	75.8	74.4	82.2	76.5	75.2	81.9
1971	86.2	85.1	91.3	86.9	85.5	92.6
1972	88.9	88.7	89.4	90.5	90.0	92.1
1973	94.1	94.3	92.7	95.3	95.1	95.8
1974	98.6	96.5	108.3	99.4	96.6	112.0
1975	99.8	100.4	97.4	94.5	93.3	99.7
1976	100.5	100.1	102.1	98.6	97.3	103.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	99.4	101.8	101.3	101.1	101.9
1979	97.6	97.6	97.3	97.0	96.7	97.9
1980[2]	94.0	94.5	92.6	94.0	94.0	93.6
Average annual percent change:						
1954-80	2.6	2.8	2.1	2.6	2.7	2.0
1976-80	-1.6	-1.4	-2.2	-1.3	-1.0	-2.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 90. Paper and plastic bags (SIC 2643): Indexes of output, employee hours, and employees, 1954–80
(1977=100)

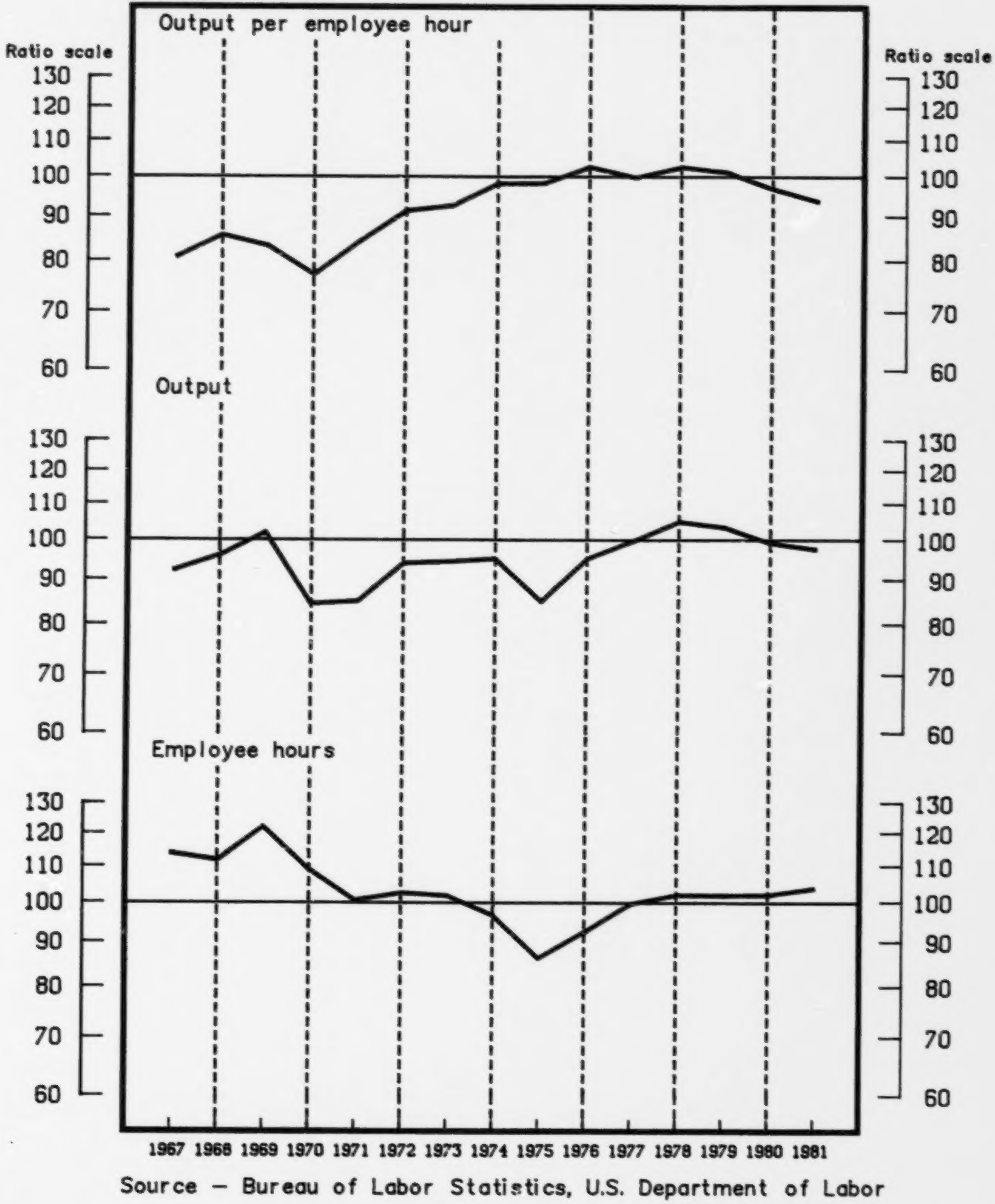
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	38.4	69.6	72.4	57.7	68.3	71.6	55.6
1955	42.0	72.6	75.4	60.5	70.4	73.4	58.6
1956	42.6	76.7	78.6	68.9	75.8	78.1	66.6
1957	44.6	79.0	80.8	71.1	77.2	79.3	68.7
1958	46.4	80.5	81.5	76.1	80.0	81.6	73.7
1959	50.5	83.6	84.2	81.1	82.7	83.7	78.8
1960	49.4	80.8	81.9	76.1	84.2	86.6	73.7
1961	52.0	80.0	81.5	73.9	81.1	83.5	71.7
1962	54.1	81.1	82.6	74.9	82.1	84.5	72.8
1963	61.3	88.0	89.1	83.3	86.9	88.4	80.9
1964	63.7	91.9	92.7	88.9	89.5	90.4	85.9
1965	67.0	92.1	92.3	91.6	90.1	90.4	88.9
1966	72.5	100.1	100.8	97.2	96.7	97.1	95.0
1967	73.3	97.0	97.5	95.0	95.1	95.6	92.9
1968	80.9	101.5	102.5	97.2	97.3	97.9	95.0
1969	81.6	104.7	104.6	104.9	101.8	101.2	104.1
1970	83.5[4]	110.2	112.2	101.6	109.2	111.1	102.0
1971	89.7	104.0	105.4	98.3	103.2	104.9	96.9
1972	90.3	101.6	101.8	101.0	99.8	100.3	98.0
1973	96.8	102.9	102.6	104.4	101.6	101.8	101.0
1974	105.3	106.8	109.1	97.2	105.9	109.0	94.0
1975	94.7	94.9	94.3	97.2	100.2	101.5	95.0
1976	102.6	102.1	102.5	100.5	104.1	105.4	99.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.9	103.0	103.5	101.1	101.6	101.8	101.0
1979	104.9	107.5	107.5	107.8	108.2	108.5	107.1
1980[1]	105.9	112.6	112.1	114.4	112.7	112.6	113.1
Average annual percent change:							
1954-80	4.3	1.6	1.5	2.1	1.7	1.5	2.2
1976-80	1.1	2.7	2.5	3.4	2.4	2.2	3.4

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 47. Folding paperboard boxes (SIC 2651): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 91. Folding paperboard boxes (SIC 2651): Indexes of output per employee hour and output per employee, 1963–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	75.8	75.2	79.2	78.0	77.2	81.3
1964	77.5	76.8	81.3	80.6	79.8	84.2
1965	73.5	72.9	76.5	76.5	76.0	78.6
1966	74.0	73.4	77.1	76.9	76.2	79.1
1967	81.0	80.9	81.9	83.9	83.8	84.0
1968	85.8	84.6	91.3	88.6	87.5	93.1
1969	83.4	82.3	89.6	85.5	84.3	90.1
1970	77.4	77.1	78.8	77.8	77.5	78.5
1971	84.5	84.9	83.2	85.0	85.0	84.4
1972	91.6	91.6	92.5	92.5	91.6	95.3
1973	92.8	92.6	94.0	93.5	92.6	96.8
1974	98.4	99.4	94.7	98.8	99.0	97.5
1975	98.5	100.6	90.3	99.5	101.4	92.5
1976	102.8	103.7	99.7	105.1	106.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	103.2	101.4	103.1	103.4	101.7
1979	101.4	101.1	103.0	102.9	102.8	103.6
1980	97.1	97.5	95.3	97.6	98.0	96.1
1981 [2]	93.9	95.4	87.6	94.4	96.2	87.9
Average annual percent change:						
1963-81	1.9	2.0	1.4	1.7	1.6	1.2
1976-81	-1.6	-1.5	-2.2	-1.7	-1.6	-2.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Paperboard Packaging Council, the Bureau of the Census, and the Bureau of Labor Statistics.

Table 92. Folding paperboard boxes (SIC 2651): Indexes of output, employee hours, and employees, 1963–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	89.5	118.0	119.0	113.0	114.8	116.0	110.1
1964	89.8	115.9	116.9	110.5	111.4	112.6	106.7
1965	88.3	120.2	121.1	115.5	115.4	116.2	112.3
1966	93.3	126.1	127.1	121.0	121.4	122.4	118.0
1967	92.5	114.2	114.3	113.0	110.3	110.4	110.1
1968	96.3	112.2	113.6	105.5	108.7	110.0	103.4
1969	102.3	122.6	124.3	114.2	119.6	121.3	113.5
1970	84.7	109.5	109.8	107.5	108.9	109.3	107.9
1971	85.3	100.9	100.5	102.5	100.4	100.3	101.1
1972	94.3	102.9	103.0	101.9	102.0	102.9	98.9
1973	94.7	102.1	102.3	100.7	101.3	102.3	97.8
1974	95.4	97.0	96.0	100.7	96.6	96.4	97.8
1975	85.3	86.6	84.8	94.5	85.7	84.1	92.2
1976	95.4	92.8	92.0	95.7	90.8	90.0	94.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.2	102.3	101.9	103.7	102.0	101.7	103.4
1979	103.6	102.2	102.5	100.6	100.7	100.8	100.0
1980	99.4	102.4	101.9	104.3	101.8	101.4	103.4
1981 [1]	97.8	104.2	102.5	111.7	103.6	101.7	111.2
Average annual percent change:							
1963-81	.6	-1.3	-1.4	-.7	-1.1	-1.2	-.6
1976-81	.3	1.9	1.7	2.5	2.0	1.9	2.6

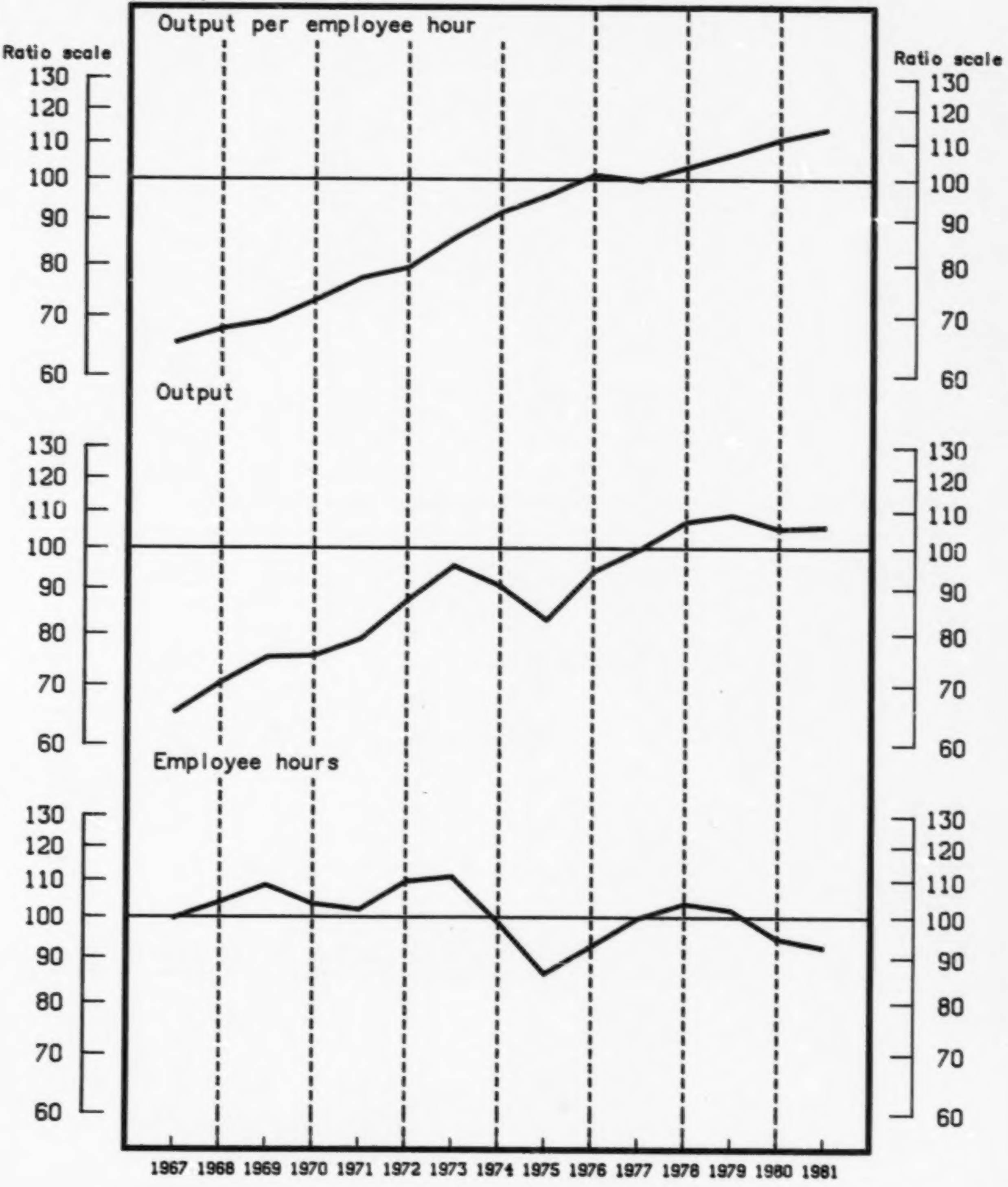
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Paperboard Packaging Council, the Bureau of the Census, and the Bureau of Labor Statistics.

Chart 48. Corrugated and solid fiber boxes (SIC 2653): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 93. Corrugated and solid fiber boxes (SIC 2653): Indexes of output per employee hour and output per employee, 1958–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	49.9	47.9	56.9	51.7	49.6	58.6
1959	50.8	47.9	61.8	53.7	50.9	63.5
1960	50.6	48.1	59.1	52.3	49.8	60.9
1961	53.4	50.7	62.8	56.0	53.4	64.4
1962	54.1	51.1	65.4	57.2	54.3	67.1
1963	57.7	55.2	66.5	60.7	58.3	68.2
1964	58.9	56.4	67.5	63.3	61.2	69.6
1965	60.7	58.2	69.6	65.5	63.5	71.5
1966	63.2	59.6	76.8	67.4	64.0	78.6
1967	65.5	62.8	74.3	68.3	65.9	76.0
1968	67.9	64.7	78.6	71.3	68.4	80.2
1969	69.3	66.3	79.9	72.5	70.0	80.4
1970	73.1	70.8	80.4	73.4	71.3	79.8
1971	77.5	75.9	82.2	78.3	76.5	83.4
1972	79.6	77.3	87.2	82.3	79.8	89.7
1973	88.1	83.1	95.6	88.6	85.2	99.1
1974	92.0	91.8	92.3	89.7	87.8	95.1
1975	96.2	96.3	90.2	94.6	95.5	92.1
1976	101.5	101.5	101.5	101.0	100.2	103.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.5	103.1	104.8	103.1	102.4	104.8
1979	107.1	106.6	108.0	106.9	106.4	108.5
1980	111.3	113.4	105.5	110.1	111.8	106.2
1981 [2]	114.3	116.1	109.4	113.2	114.6	110.0
Average annual percent change:						
1958-81	4.0	4.3	2.9	3.6	3.9	2.8
1976-81	2.7	3.1	1.6	2.6	3.0	1.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Fiber Box Association, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 94. Corrugated and solid fiber boxes (SIC 2653): Indexes of output, employee hours, and employment, 1958–81

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	36.1	72.3	75.4	63.5	69.8	72.8	61.6
1959	41.2	81.1	86.1	66.7	76.7	81.0	64.9
1960	41.2	81.5	85.6	69.7	78.8	82.8	67.7
1961	44.0	82.4	86.8	70.1	78.6	82.4	68.3
1962	47.0	86.8	91.9	71.9	82.1	86.6	70.0
1963	49.8	86.3	90.2	74.9	82.1	85.4	73.0
1964	53.9	91.5	95.5	79.8	85.2	88.0	77.4
1965	58.5	96.3	100.5	84.1	89.3	92.1	81.8
1966	63.8	100.9	107.1	83.1	94.7	99.7	81.2
1967	65.4	99.9	104.1	88.0	95.7	99.3	86.1
1968	70.7	104.2	109.2	90.0	99.2	103.4	88.2
1969	75.5	108.9	113.9	94.5	104.1	107.8	93.9
1970	75.8	103.7	107.0	94.3	103.2	106.3	95.0
1971	79.2	102.2	104.4	96.3	101.2	103.5	95.0
1972	87.5	109.9	113.2	100.4	106.3	109.6	97.5
1973	95.8	111.3	115.3	100.2	108.1	112.4	96.7
1974	91.0	98.9	99.1	98.6	101.5	103.7	95.7
1975	83.3	86.6	84.7	92.3	88.1	87.2	90.4
1976	94.4	93.0	93.0	93.0	93.5	94.2	91.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.4	103.8	104.2	102.5	104.2	104.9	102.5
1979	109.3	102.1	102.5	101.2	102.2	102.7	100.7
1980	105.5	94.8	93.0	100.0	95.8	94.4	99.3
1981 [1]	106.0	92.7	91.3	96.9	93.6	92.5	96.4
Average annual percent change:							
1958-81	5.0	.9	.6	2.0	1.3	1.0	2.1
1976-81	2.2	-.5	-.9	.6	-.4	-.6	.7

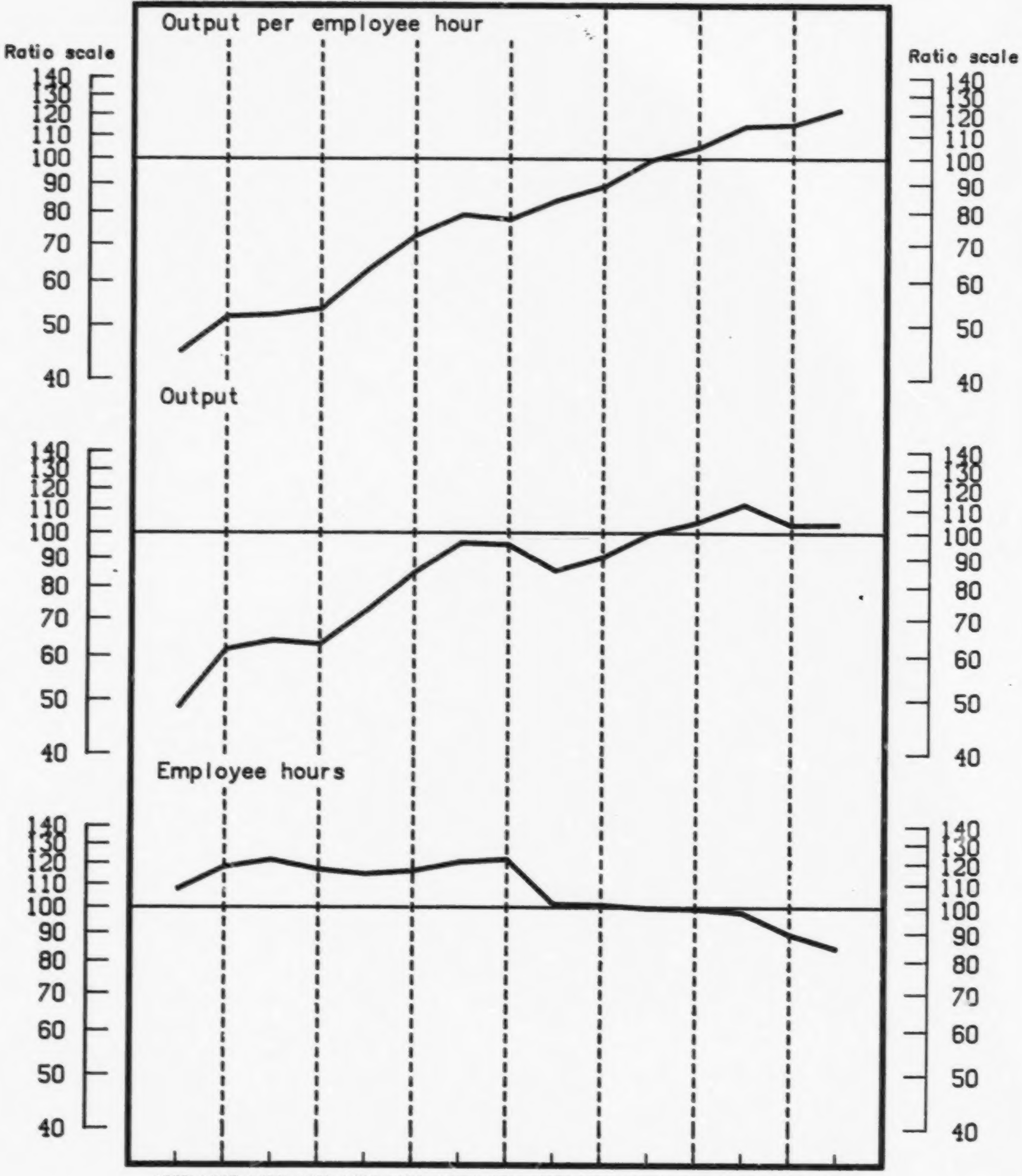
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Fiber Box Association, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 49. Synthetic fibers (SIC 2823, 2824): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 95. Synthetic fibers (SIC 2823, 2824): Indexes of output per employee hour and output per employee, 1957–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1957	30.9	30.5	32.0	31.1	30.5	32.9
1958	29.6	30.4	27.5	30.2	30.9	28.2
1959	33.9	33.4	35.9	34.7	34.0	36.8
1960	32.4	32.5	32.2	32.5	32.4	32.8
1961	34.8	35.1	34.0	35.2	35.4	34.4
1962	38.3	37.8	39.9	39.0	38.5	40.5
1963	37.9	38.4	36.4	38.9	39.6	37.0
1964	40.4	40.6	39.7	41.9	42.4	40.5
1965	41.8	41.6	42.1	42.9	42.9	42.7
1966	42.0	42.8	39.7	42.8	43.8	40.1
1967	45.0	45.3	44.3	45.7	46.0	44.7
1968	52.1	51.1	55.4	53.7	52.9	56.3
1969	52.5	51.8	55.2	53.9	53.3	55.8
1970	53.8	53.9	53.7	54.3	54.4	54.0
1971	63.3	62.4	66.5	63.8	62.9	66.9
1972	73.0	71.1	80.2	74.7	73.0	80.3
1973	79.5	77.0	88.7	81.7	79.3	89.9
1974	78.0	77.3	80.1	78.7	77.6	82.0
1975	84.5	86.9	77.5	83.4	85.0	78.9
1976	89.5	92.1	82.5	88.2	89.8	83.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.2	104.7	106.8	105.6	105.1	106.9
1979	115.0	113.9	118.2	115.8	114.8	118.8
1980	115.7	117.4	111.0	114.9	116.0	111.8
1981 [2]	123.0	124.5	118.4	123.5	124.9	118.9
Average annual percent change:						
1957-81	6.5	6.5	6.5	6.4	6.4	6.4
1976-81	6.2	6.1	6.6	6.5	6.4	6.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Textile Economics Bureau, Inc. and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 96. Synthetic fibers (SIC 2823, 2824): Indexes of output, employee hours, and employees, 1957–81

(1977=100)

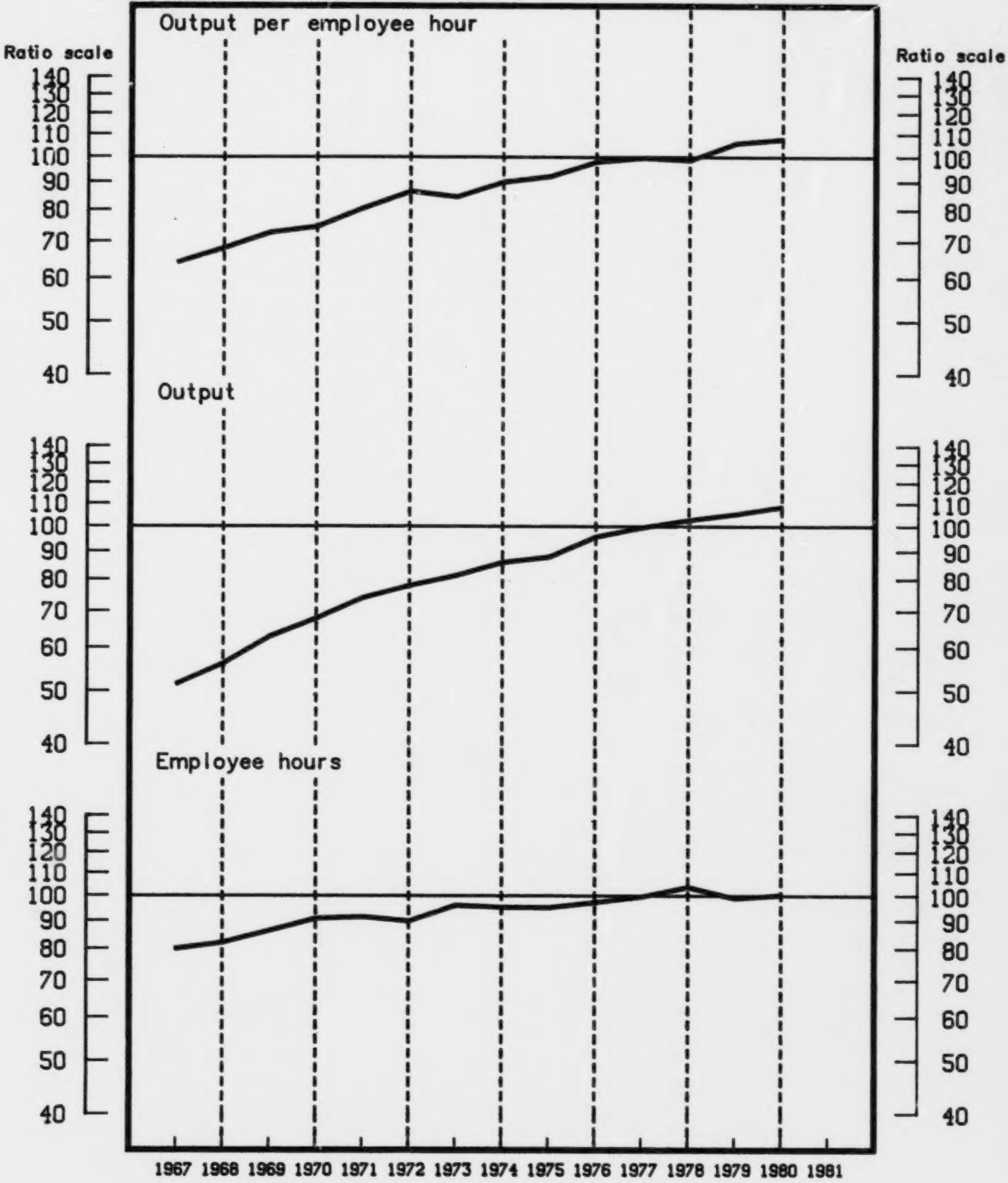
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1957	24.2	78.4	79.3	75.6	77.8	79.3	73.8
1958	22.1	74.6	72.8	80.3	73.3	71.6	78.4
1959	26.4	77.8	79.0	73.5	76.1	77.7	71.8
1960	24.8	76.5	76.3	77.0	76.2	76.6	75.5
1961	26.1	74.9	74.3	76.8	74.2	73.8	75.8
1962	31.2	81.5	82.5	78.2	80.1	81.1	77.1
1963	33.3	87.8	86.7	91.4	85.5	84.0	90.1
1964	38.2	94.5	94.0	96.2	91.2	90.2	94.3
1965	43.8	104.9	105.3	104.0	102.2	102.1	102.6
1966	47.8	113.9	111.6	120.4	111.7	109.2	119.3
1967	48.7	108.2	107.6	109.9	106.6	105.6	108.9
1968	61.9	118.8	121.1	111.8	115.2	117.0	109.9
1969	64.2	122.2	124.0	116.4	119.1	120.4	115.0
1970	63.2	117.4	117.2	117.7	118.3	118.1	117.0
1971	72.9	115.2	116.9	109.7	114.2	115.9	108.9
1972	85.2	116.7	119.9	106.3	114.1	116.7	106.1
1973	96.3	121.1	125.0	108.6	117.8	121.5	107.1
1974	95.5	122.5	123.5	119.2	121.3	123.0	116.4
1975	85.9	101.7	98.8	110.9	103.0	101.1	108.9
1976	90.8	101.4	98.6	110.1	102.9	101.1	108.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.0	99.8	100.3	98.3	99.4	99.9	98.2
1979	113.0	98.3	99.2	95.6	97.6	98.4	95.1
1980	103.9	89.8	88.5	93.6	90.4	89.6	92.9
1981 [1]	104.2	84.7	83.7	88.0	84.4	83.4	87.6
Average annual percent change:							
1957-81	7.7	1.1	1.1	1.2	1.2	1.2	1.2
1976-81	2.5	-3.5	-3.4	-3.8	-3.7	-3.7	-3.7

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Textile Economics Bureau, Inc. and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 50. Pharmaceutical preparations (SIC 2834): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 97. Pharmaceutical preparations (SIC 2834): Indexes of output per employee hour and output per employee, 1963-80

(1977=100)

Year	Output per hour[1]		Output per employee[1]		
	All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:					
1963	52.9	49.0	54.2	50.1	59.0
1964	54.0	49.3	55.7	50.7	61.6
1965	58.5	53.8	59.6	54.7	65.4
1966	60.6	55.5	62.6	57.3	69.0
1967	64.4	59.4	64.1	59.1	70.0
1968	68.4	63.6	69.6	64.8	75.3
1969	73.0	66.6	74.1	67.7	81.9
1970	74.8	70.0	77.1	72.0	82.8
1971	81.0	80.1	82.8	81.8	83.8
1972	86.8	85.1	88.4	86.6	90.2
1973	84.8	84.5	85.5	85.2	85.6
1974	90.3	89.7	90.4	89.8	90.9
1975	92.5	94.1	90.8	92.5	89.3
1976	98.4	98.1	98.0	97.7	98.3
1977	100.0	100.0	100.0	100.0	100.0
1978	99.0	100.2	100.6	101.7	99.5
1979	106.4	103.5	102.9	100.1	105.8
1980[2]	108.2	107.0	101.9	100.6	103.1
Average annual percent change:					
1963-80	4.4	5.1	4.1	4.8	3.4
1976-80	2.6	2.1	1.1	.6	1.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 98. Pharmaceutical preparations (SIC 2834): Indexes of output, employee hours, and employees, 1963-80

(1977=100)

Year	Output	Employee hours		Employees		
		All employees	Production workers	All employees	Production workers	Nonproduction workers
Index:						
1963	36.5	69.0	74.5	67.3	72.8	61.9
1964	39.7	73.5	80.6	71.3	78.3	64.4
1965	44.6	76.2	82.9	74.8	81.5	68.2
1966	48.7	80.3	87.7	77.8	85.0	70.6
1967	51.7	80.3	87.1	80.7	87.5	73.9
1968	56.4	82.4	88.7	81.0	87.1	74.9
1969	63.2	86.6	94.9	85.3	93.4	77.2
1970	68.2	91.2	97.4	88.5	94.7	82.4
1971	74.4	91.9	92.9	89.9	91.0	88.8
1972	78.3	90.2	92.0	88.6	90.4	86.8
1973	81.7	96.4	96.7	95.6	95.9	95.4
1974	86.3	95.6	96.2	95.5	96.1	94.9
1975	88.3	95.5	93.8	97.2	95.5	98.9
1976	96.1	97.7	98.0	98.1	98.4	97.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.1	104.1	102.9	102.5	101.4	103.6
1979	105.8	99.4	102.2	102.8	105.7	100.0
1980[1]	109.0	100.7	101.9	107.0	108.4	105.7
Average annual percent change:						
1963-80	6.7	2.2	1.5	2.5	1.9	3.2
1976-80	3.1	.5	1.0	2.0	2.5	1.6

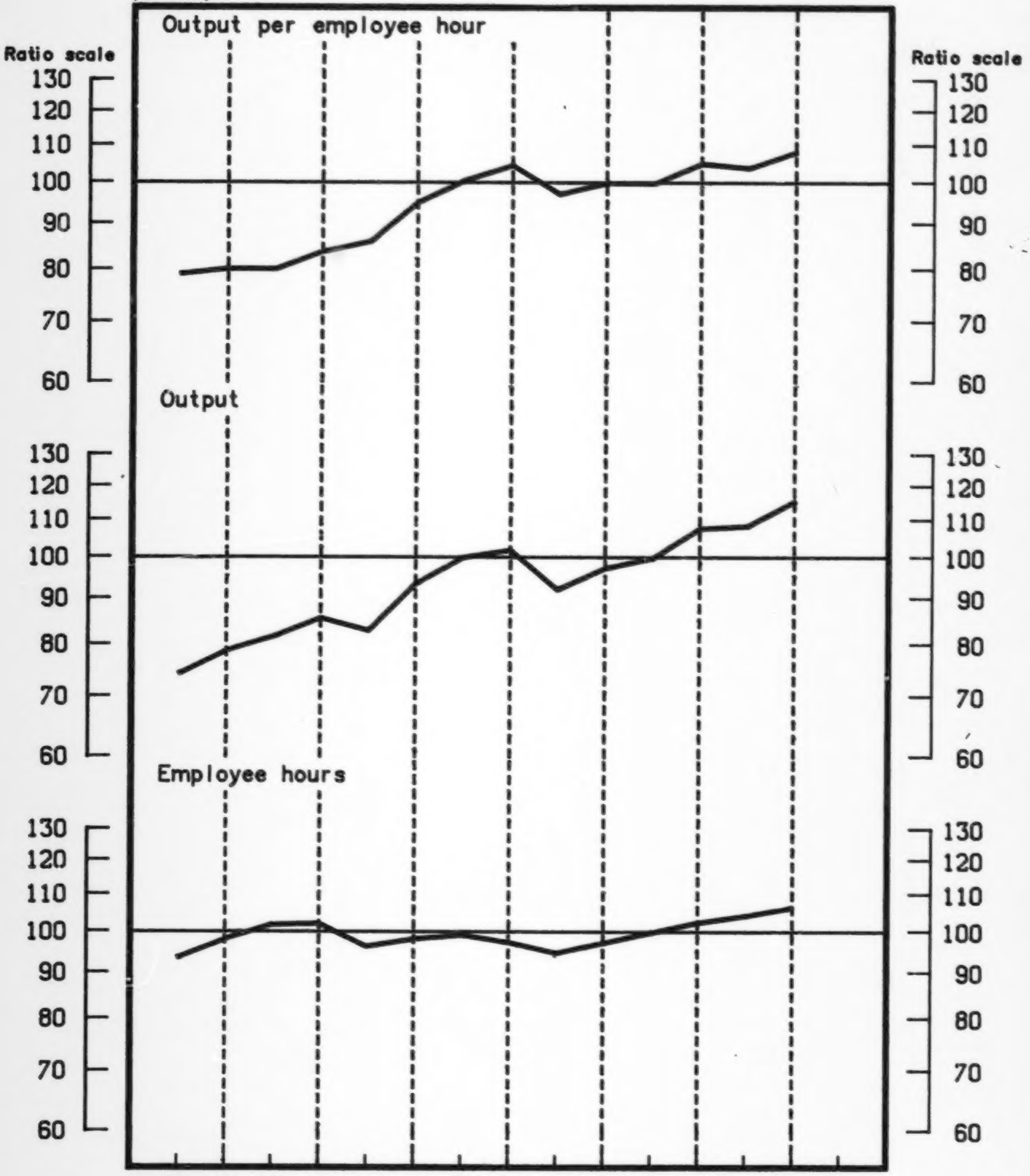
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 51. Soaps and detergents (SIC 2841): Output per hour and related data, 1967-80
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

Table 99. Soaps and detergents (SIC 2841): Indexes of output per employee hour and output per employee, 1958–80

(1977=100)

Year	Output per hour[1]			Output per employee[1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	61.6	58.1	69.2	60.1	55.6	69.6
1959	66.9	63.3	74.7	65.5	61.0	75.0
1960	64.8	60.5	74.5	63.7	58.7	74.5
1961	65.5	60.6	76.5	64.7	59.4	76.3
1962	66.5	60.5	81.5	65.5	58.8	80.8
1963	72.0	64.9	89.8	70.4	62.6	89.0
1964	72.0	65.5	87.6	70.4	63.2	87.0
1965	69.9	64.5	82.4	68.5	62.5	81.6
1966	74.7	69.7	86.0	73.8	68.4	85.2
1967	79.3	74.2	90.8	77.9	72.1	90.1
1968	80.3	76.0	89.3	78.7	73.9	88.4
1969	80.2	77.2	86.3	79.0	75.8	85.2
1970	83.9	81.9	87.6	82.3	80.0	86.4
1971	86.1	85.1	87.7	83.5	81.7	86.6
1972	95.2	92.9	100.1	94.2	91.5	99.0
1973	100.8	99.4	103.4	100.2	98.2	103.6
1974	104.7	103.0	107.8	103.9	100.9	109.4
1975	97.3	95.0	101.7	96.6	93.3	102.7
1976	100.1	99.2	101.9	100.0	98.6	102.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.2	102.7	110.1	105.8	103.4	110.1
1979	104.0	101.3	109.4	104.2	101.3	109.4
1980[2]	108.4	106.5	111.9	107.3	104.8	111.9
Average annual percent change:						
1958-80	2.7	3.1	1.9	2.8	3.3	2.0
1976-80	2.0	1.6	2.8	1.8	1.4	2.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 100. Soaps and detergents (SIC 2841): Indexes of output, employee hours, and employees, 1958–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	48.1	78.1	82.8	69.5	80.0	86.5	69.1
1959	53.4	79.8	84.4	71.5	81.5	87.6	71.2
1960	53.5	82.6	88.5	71.8	84.0	91.2	71.8
1961	56.3	86.0	92.9	73.6	87.0	94.8	73.8
1962	58.6	88.1	96.8	71.9	89.5	99.6	72.5
1963	63.4	88.1	97.7	70.6	90.0	101.2	71.2
1964	66.0	91.7	100.7	75.3	93.8	104.4	75.9
1965	65.8	94.2	102.0	79.9	96.0	105.2	80.6
1966	69.8	93.4	100.1	81.2	94.6	102.0	81.9
1967	74.4	93.8	100.3	81.9	95.5	103.2	82.6
1968	78.9	98.3	103.8	88.4	100.3	106.8	89.3
1969	81.8	102.0	105.9	94.8	103.5	107.9	96.0
1970	85.8	102.3	104.7	98.0	104.3	107.2	99.3
1971	83.1	96.5	97.6	94.8	99.5	101.7	96.0
1972	93.7	98.4	100.9	93.6	99.5	102.4	94.6
1973	100.2	99.4	100.8	96.9	100.0	102.0	96.7
1974	102.1	97.5	99.1	94.7	98.3	101.2	93.3
1975	92.3	94.9	97.2	90.8	95.5	98.9	89.9
1976	97.5	97.4	98.3	95.7	97.5	98.9	95.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	102.6	105.1	98.0	102.0	104.4	98.0
1979	108.6	104.4	107.2	99.3	104.2	107.2	99.3
1980[1]	115.7	106.7	108.6	103.4	107.8	110.4	103.4
Average annual percent change:							
1958-80	3.9	1.1	.7	1.9	1.0	.6	1.9
1976-80	4.3	2.3	2.7	1.5	2.4	2.9	1.6

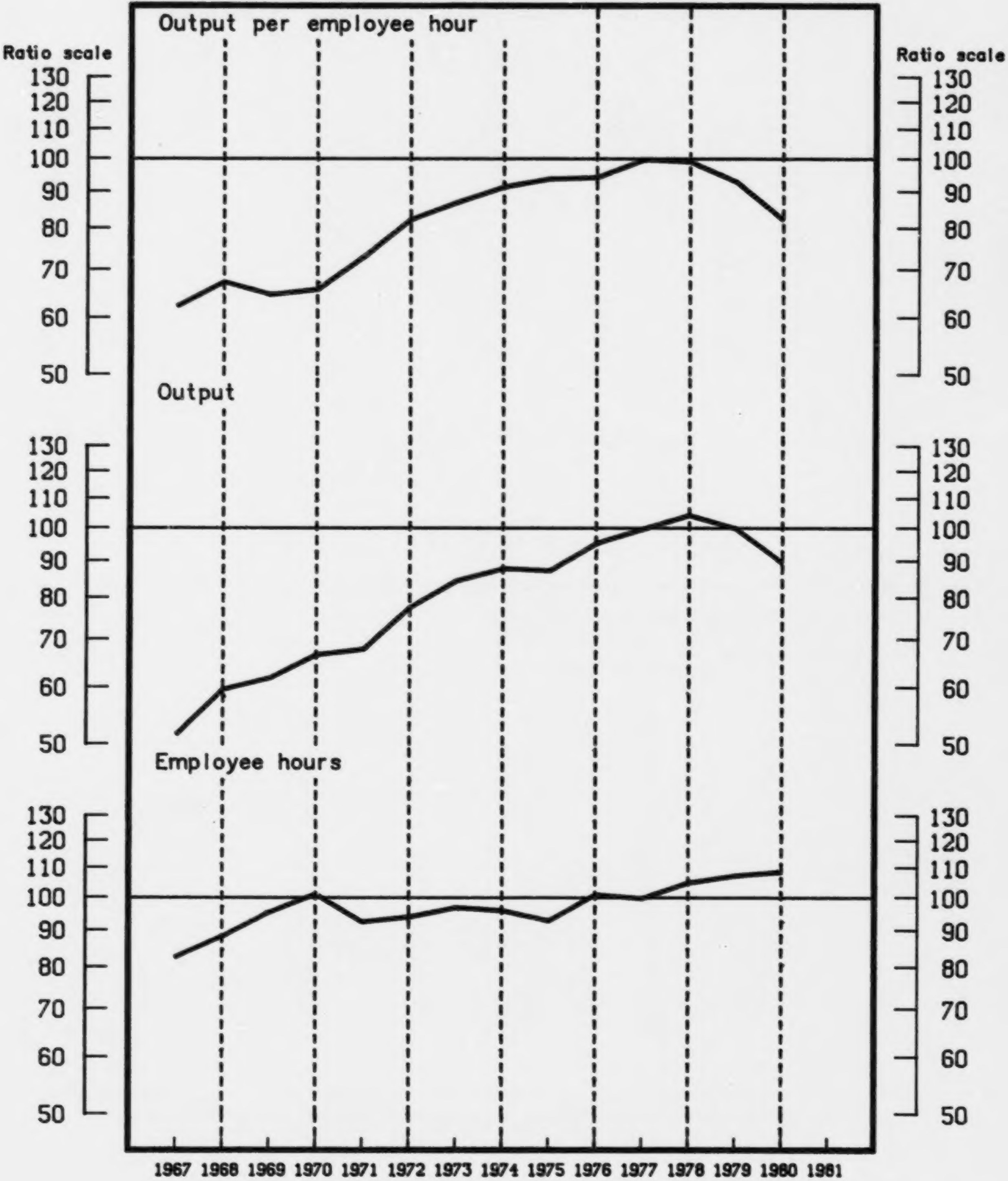
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 52. Cosmetics and other toiletries (SIC 2844): Output per hour and related data, 1967-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 101. Cosmetics and other toiletries (SIC 2844): Indexes of output per employee hour and output per employee, 1958-80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	40.0	39.0	41.7	40.2	39.3	41.9
1959	43.9	41.9	47.7	44.3	42.3	48.0
1960	45.1	44.1	46.7	45.1	44.2	46.7
1961	46.9	47.0	46.5	47.3	47.8	46.5
1962	49.6	49.7	49.6	50.2	50.8	49.2
1963	57.0	58.1	55.4	57.9	59.8	55.0
1964	63.8	65.3	61.4	63.1	64.4	60.9
1965	65.7	66.6	64.5	66.0	67.4	64.0
1966	65.2	65.1	65.4	66.9	68.1	64.9
1967	62.5	63.1	61.6	62.8	64.0	61.2
1968	67.5	67.4	67.7	67.6	67.9	67.0
1969	64.8	64.7	65.1	65.2	65.8	64.2
1970	65.9	68.9	61.6	66.6	71.1	60.8
1971	73.3	80.4	64.2	73.4	81.4	63.3
1972	82.5	89.1	73.9	82.8	90.3	73.1
1973	87.2	97.4	74.9	87.7	97.9	75.1
1974	91.6	95.2	86.4	92.4	95.8	87.7
1975	94.0	95.6	91.6	94.8	96.4	92.5
1976	94.4	94.3	94.6	95.3	95.5	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.3	98.6	100.6	98.6	97.4	100.6
1979	93.1	93.8	92.0	92.7	93.1	92.0
1980 [2]	82.5	80.2	86.5	83.3	81.4	86.5
Average annual percent change:						
1958-80	4.0	4.2	3.8	4.0	4.1	3.8
1976-80	-3.4	-3.8	-2.6	-3.4	-3.8	-2.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 102. Cosmetics and other toiletries (SIC 2844): Indexes of output, employee hours, and employees, 1958-80

(1977=100)

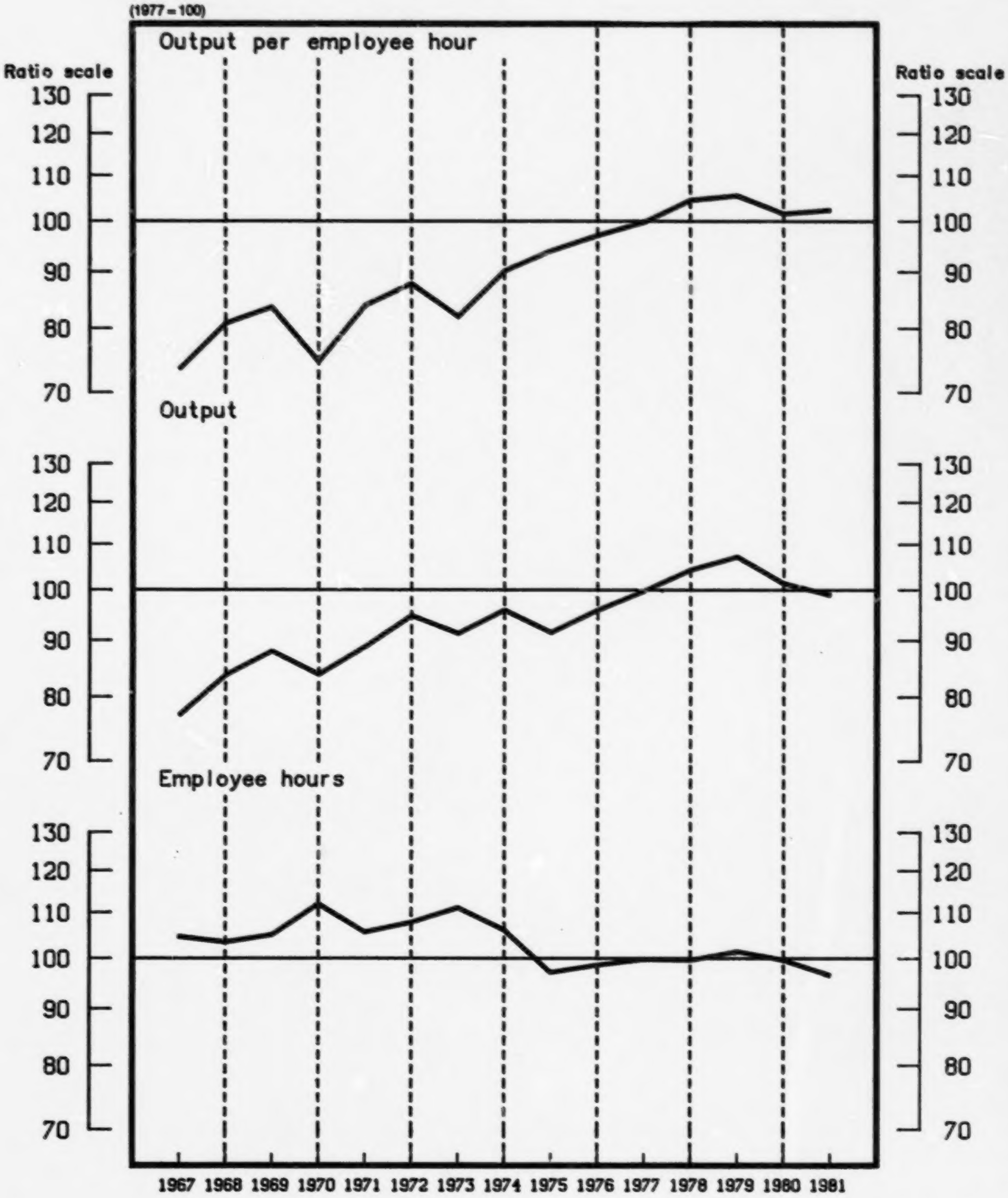
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	22.7	56.8	58.2	54.5	56.4	57.8	54.2
1959	26.5	60.3	63.3	55.5	59.8	62.7	55.2
1960	26.9	59.7	61.0	57.6	59.6	60.9	57.8
1961	29.1	62.1	61.9	62.4	61.5	60.9	62.6
1962	32.0	64.5	64.4	64.5	63.8	63.0	65.0
1963	38.2	67.0	65.7	68.9	66.0	63.9	69.5
1964	42.6	66.8	65.2	69.4	67.5	66.1	70.0
1965	47.6	72.4	71.5	73.8	72.1	70.6	74.4
1966	52.1	79.9	80.0	79.7	77.9	76.5	80.3
1967	51.8	82.9	82.1	84.1	82.5	81.0	84.7
1968	59.8	88.6	88.7	88.3	88.5	88.1	89.2
1969	62.0	95.7	95.9	95.3	95.1	94.2	96.6
1970	66.8	101.4	97.0	108.5	100.0	93.9	109.9
1971	68.0	92.8	84.6	106.0	92.6	83.5	107.4
1972	77.8	94.3	87.3	105.3	94.0	86.2	106.4
1973	84.7	97.1	87.0	113.1	96.6	86.5	112.8
1974	88.1	96.2	92.5	102.0	95.3	92.0	100.5
1975	87.5	93.1	91.5	95.5	92.3	90.8	94.6
1976	95.5	101.2	101.3	101.0	100.2	100.0	100.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	105.2	106.0	103.9	106.0	107.3	103.9
1979	100.2	107.6	106.8	108.9	108.1	107.6	108.9
1980 [1]	89.9	109.0	112.1	103.9	107.9	110.4	103.9
Average annual percent change:							
1958-80	7.3	3.1	2.9	3.3	3.1	3.0	3.3
1976-80	-1.2	2.2	2.7	1.4	2.3	2.7	1.5

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 53. Paints and allied products (SIC 2851): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 103. Paints and allied products (SIC 2851): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour[1]			Output per employee[1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	55.3	53.6	57.5	56.1	53.9	59.0
1959	60.4	58.8	62.4	61.0	58.6	63.9
1960	64.9	63.0	67.6	65.4	62.5	69.0
1961	63.3	61.7	65.5	63.8	61.7	66.4
1962	66.1	64.3	68.4	67.5	66.0	69.5
1963	68.2	66.9	69.9	69.4	68.2	70.9
1964	72.5	70.4	75.4	74.6	72.8	76.8
1965	73.3	72.0	75.1	74.6	73.2	76.1
1966	76.9	75.1	79.2	76.0	76.4	79.9
1967	73.7	72.9	74.6	74.2	73.2	75.2
1968	81.0	80.1	82.1	81.9	80.5	83.5
1969	83.8	81.8	86.3	84.0	81.4	87.2
1970	74.9	73.5	76.8	74.8	72.9	77.3
1971	34.1	84.4	83.8	83.1	82.2	84.3
1972	88.0	85.9	90.7	88.5	86.6	90.8
1973	82.2	80.3	84.7	81.0	77.2	86.0
1974	90.4	91.5	89.0	90.9	90.6	91.3
1975	94.2	90.0	88.8	94.0	87.2	90.4
1976	97.3	93.6	94.2	97.7	99.4	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	105.4	103.7	104.3	104.8	103.8
1979	105.7	104.4	107.4	104.5	101.8	107.8
1980	101.8	106.1	96.7	100.1	102.5	97.5
1981[2]	102.6	108.9	95.5	100.8	105.6	95.8
Average annual percent change:						
1958-81	2.6	2.9	2.3	2.5	2.8	2.2
1976-81	.9	1.8	(3)	.5	1.0	–.1

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 104. Paints and allied products (SIC 2851): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	51.9	93.9	96.9	90.2	92.5	96.3	86.0
1959	56.3	96.5	99.2	93.4	95.6	99.5	91.3
1960	60.9	93.8	96.7	90.1	93.1	97.4	88.3
1961	58.6	92.6	95.0	89.4	91.9	95.0	88.2
1962	61.9	93.7	96.3	90.5	91.7	93.8	89.1
1963	67.0	98.2	100.1	95.8	96.5	98.2	94.5
1964	71.6	98.7	101.7	94.9	96.0	98.4	93.2
1965	76.5	104.3	106.3	101.9	102.6	104.5	100.5
1966	82.5	107.3	109.9	104.2	105.8	108.0	103.3
1967	77.2	104.8	105.9	103.5	104.1	105.4	102.6
1968	83.9	103.6	104.7	102.2	102.5	104.2	100.5
1969	88.2	105.2	107.8	102.2	106.0	108.3	101.2
1970	84.0	112.2	114.3	109.4	112.3	115.3	108.7
1971	89.0	105.6	105.5	106.2	107.1	108.3	105.6
1972	95.0	108.0	110.6	104.7	107.4	109.7	104.6
1973	91.5	111.3	113.9	108.0	112.0	118.5	106.4
1974	96.1	106.3	105.0	106.0	105.7	106.1	105.3
1975	91.7	97.3	92.6	103.3	97.6	94.3	101.4
1976	96.1	98.8	96.5	102.0	98.4	96.7	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	99.8	99.1	100.8	100.2	99.7	100.7
1979	107.4	101.6	102.9	100.0	102.8	105.5	99.6
1980	101.6	99.8	95.8	105.1	101.5	99.1	104.2
1981[1]	99.2	96.7	91.1	103.9	98.4	93.9	103.5
Average annual percent change:							
1958-81	2.9	.3	(2)	.6	.4	.1	.7
1976-81	.7	–.3	–1.1	.7	.2	–.3	.8

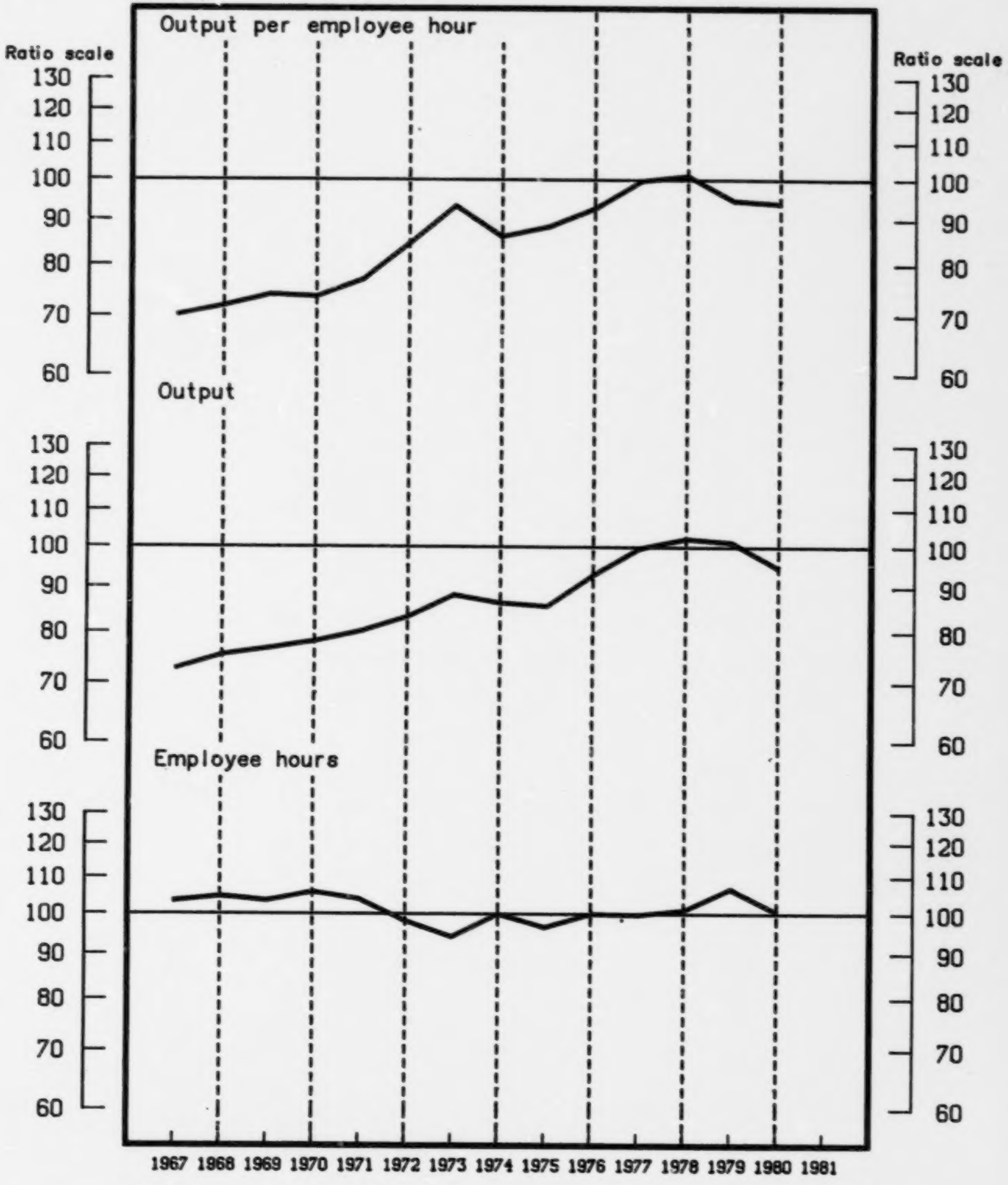
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 54. Petroleum refining (SIC 2911): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 105. Petroleum refining (SIC 2911): Indexes of output per employee hour and output per employee, 1954–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	31.4	30.0	36.2	30.8	28.7	37.3
1955	34.4	32.7	39.9	34.0	31.6	40.9
1956	35.8	34.1	41.5	35.4	33.0	42.7
1957	35.9	34.7	39.8	35.6	33.6	40.9
1958	37.7	36.5	41.4	36.8	34.7	42.5
1959	42.4	41.1	46.5	41.8	39.4	47.6
1960	44.1	43.1	47.2	43.6	41.8	48.4
1961	47.5	46.7	50.3	46.9	45.1	51.3
1962	51.8	51.1	53.9	51.1	49.5	55.3
1963	55.7	54.6	58.7	54.5	52.3	60.2
1964	58.7	57.7	61.9	58.3	56.2	63.7
1965	63.6	62.5	67.2	62.7	60.4	68.8
1966	68.7	67.4	72.5	67.9	65.6	73.8
1967	70.4	69.5	72.9	70.0	68.3	74.3
1968	72.1	71.7	73.4	72.3	71.1	75.6
1969	74.2	75.8	70.4	76.6	76.4	77.1
1970	73.8	74.1	73.4	74.6	73.8	76.8
1971	77.2	78.1	75.0	77.2	78.8	78.6
1972	84.9	84.8	85.3	84.9	83.1	89.4
1973	93.6	94.7	91.1	92.6	91.3	95.4
1974	86.4	85.6	88.8	86.3	83.8	92.4
1975	88.7	89.7	86.7	87.7	86.9	89.2
1976	93.0	92.6	94.2	94.0	93.1	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.3	100.6	103.2	103.3	103.3	103.1
1979	94.9	96.8	90.4	96.0	98.7	90.6
1980 [2]	94.2	100.3	81.8	94.8	96.7	90.7
Average annual percent change:						
1947-80	5.0	5.3	3.9	5.0	5.4	3.9
1976-80	-.3	1.3	-3.8	-.2	.6	-2.1

---

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 106. Petroleum refining (SIC 2911): Indexes of output, employee hours, and employees, 1954–80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	46.2	147.0	154.2	127.7	149.4	160.7	123.7
1955	50.0	145.5	153.0	125.3	147.1	158.2	122.3
1956	53.2	148.6	156.1	128.3	150.2	161.3	124.7
1957	53.4	148.6	153.8	134.1	150.2	158.9	130.5
1958	52.4	139.1	143.7	126.6	142.5	150.9	123.4
1959	55.7	131.4	135.6	119.9	133.8	141.3	116.9
1960	57.4	130.1	133.1	121.6	131.6	137.2	118.5
1961	58.8	123.7	126.0	117.0	125.5	130.3	114.6
1962	61.3	118.4	119.9	113.7	120.0	123.9	110.9
1963	62.9	113.0	115.2	107.1	115.4	120.3	104.4
1964	64.7	110.2	112.2	104.6	111.0	115.2	101.6
1965	66.5	104.5	108.4	99.0	106.0	110.1	96.6
1966	69.9	101.8	103.7	96.4	102.9	106.6	94.7
1967	72.9	103.6	104.9	100.0	104.1	106.7	98.1
1968	75.6	104.9	105.5	103.0	104.5	106.4	100.0
1969	76.9	103.7	101.4	109.3	100.4	100.7	99.7
1970	78.3	106.1	105.7	108.7	105.0	106.4	102.0
1971	80.4	104.2	102.9	107.2	104.1	104.9	102.3
1972	83.5	98.4	98.5	97.9	96.3	100.5	93.4
1973	88.4	94.4	93.3	97.0	95.5	96.8	92.7
1974	86.6	100.2	101.2	97.5	100.3	103.3	93.7
1975	85.9	98.8	95.8	99.1	98.0	98.6	96.3
1976	93.2	100.2	100.6	98.6	99.2	100.1	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	101.2	101.9	99.3	99.2	99.2	99.4
1979	101.5	107.0	104.9	112.3	105.7	102.8	112.0
1980 [1]	95.0	100.8	94.7	116.2	100.2	98.2	104.7
Average annual percent change:							
1947-80	3.3	-1.6	-1.9	-.6	-1.5	-2.0	-.8
1976-80	.5	.8	-.7	4.5	.8	-.1	2.7

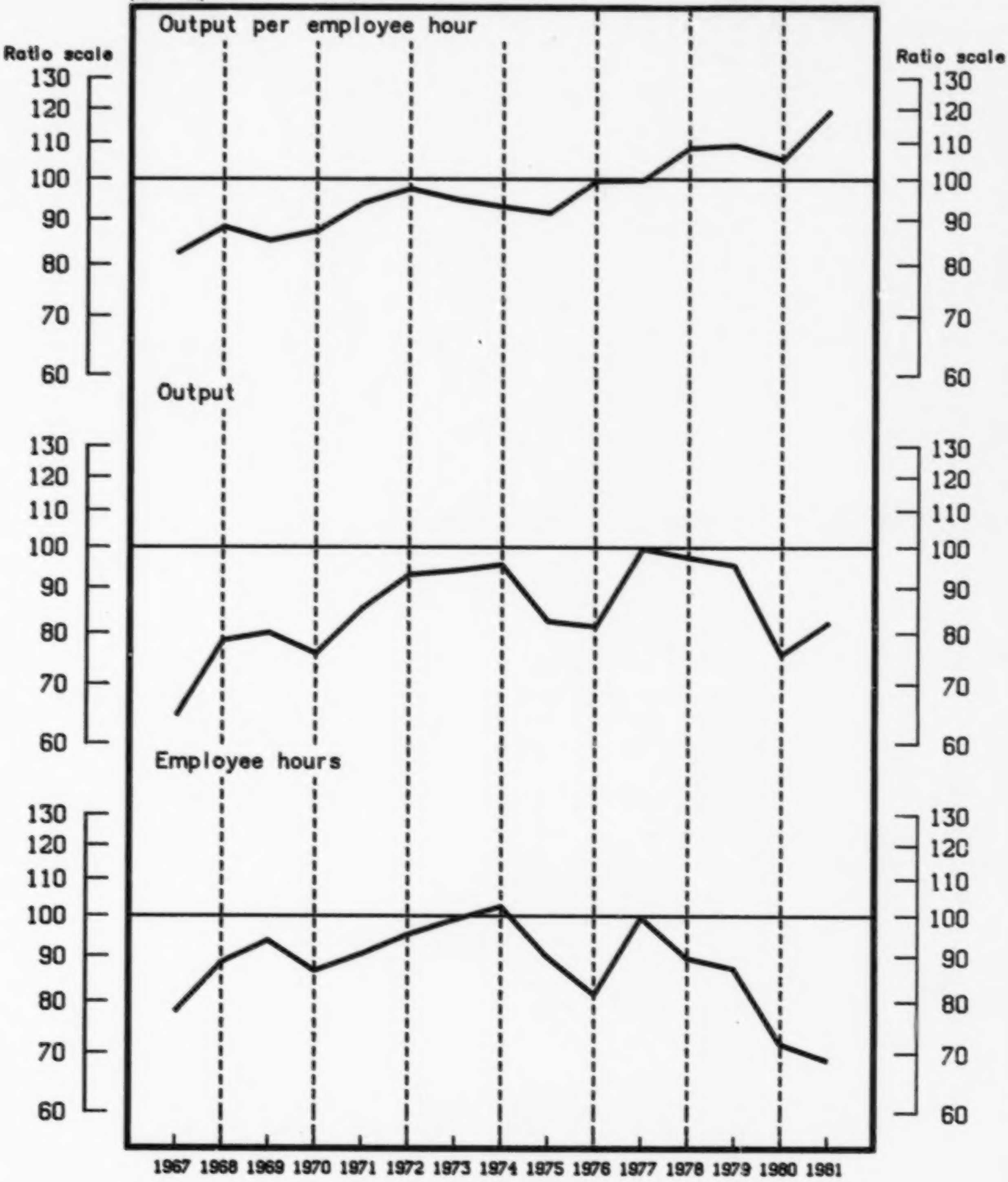
---

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 55. Tires and inner tubes (SIC 3011): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 107. Tires and inner tubes (SIC 3011): Indexes of output per employee hour and output per employee, 1954–81
(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	45.1	44.5	47.3	42.9	41.6	47.8
1955	48.0	45.8	57.9	50.2	48.3	58.1
1956	47.9	47.0	51.0	46.5	45.3	51.4
1957	50.5	49.8	53.1	49.5	48.5	53.5
1958	52.6	52.6	52.3	50.8	50.3	52.6
1959	58.3	57.0	63.0	57.3	55.8	63.3
1960	59.7	59.2	61.2	58.4	57.7	61.1
1961	61.6	62.1	59.8	60.3	60.7	59.0
1962	67.9	66.7	72.3	66.7	67.9	71.3
1963	72.9	72.4	74.3	72.3	72.1	73.3
1964	79.6	78.8	81.7	81.1	81.3	80.8
1965	81.3	80.8	82.6	83.5	84.1	81.4
1966	83.0	82.1	85.7	85.3	85.7	84.0
1967	82.7	83.6	79.7	79.6	80.1	78.0
1968	88.5	88.4	88.7	91.4	91.6	90.3
1969	85.4	85.1	86.6	89.0	89.2	88.6
1970	87.6	90.1	79.6	86.3	87.7	81.8
1971	94.3	95.7	89.2	93.0	94.0	90.6
1972	97.8	97.6	98.3	99.0	99.3	98.4
1973	95.1	96.3	90.7	93.9	94.4	92.3
1974	93.3	95.0	87.0	93.3	94.3	89.6
1975	91.8	95.5	79.9	88.8	91.4	81.5
1976	99.8	105.8	82.3	88.6	91.5	83.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.8	107.0	115.2	108.3	106.5	115.2
1979	109.5	109.1	110.4	105.7	104.4	110.9
1980	105.6	110.0	91.8	99.2	101.3	92.4
1981 [2]	119.6	124.1	105.5	115.2	118.4	105.9
Average annual percent change:						
1947-81	3.5	3.7	2.6	3.4	3.6	2.8
1976-81	3.1	3.2	2.7	3.5	3.8	2.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Rubber Manufacturers Association, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 108. Tires and inner tubes (SIC 3011): Indexes of output, employee hours, and employees, 1954–81
(1977=100)

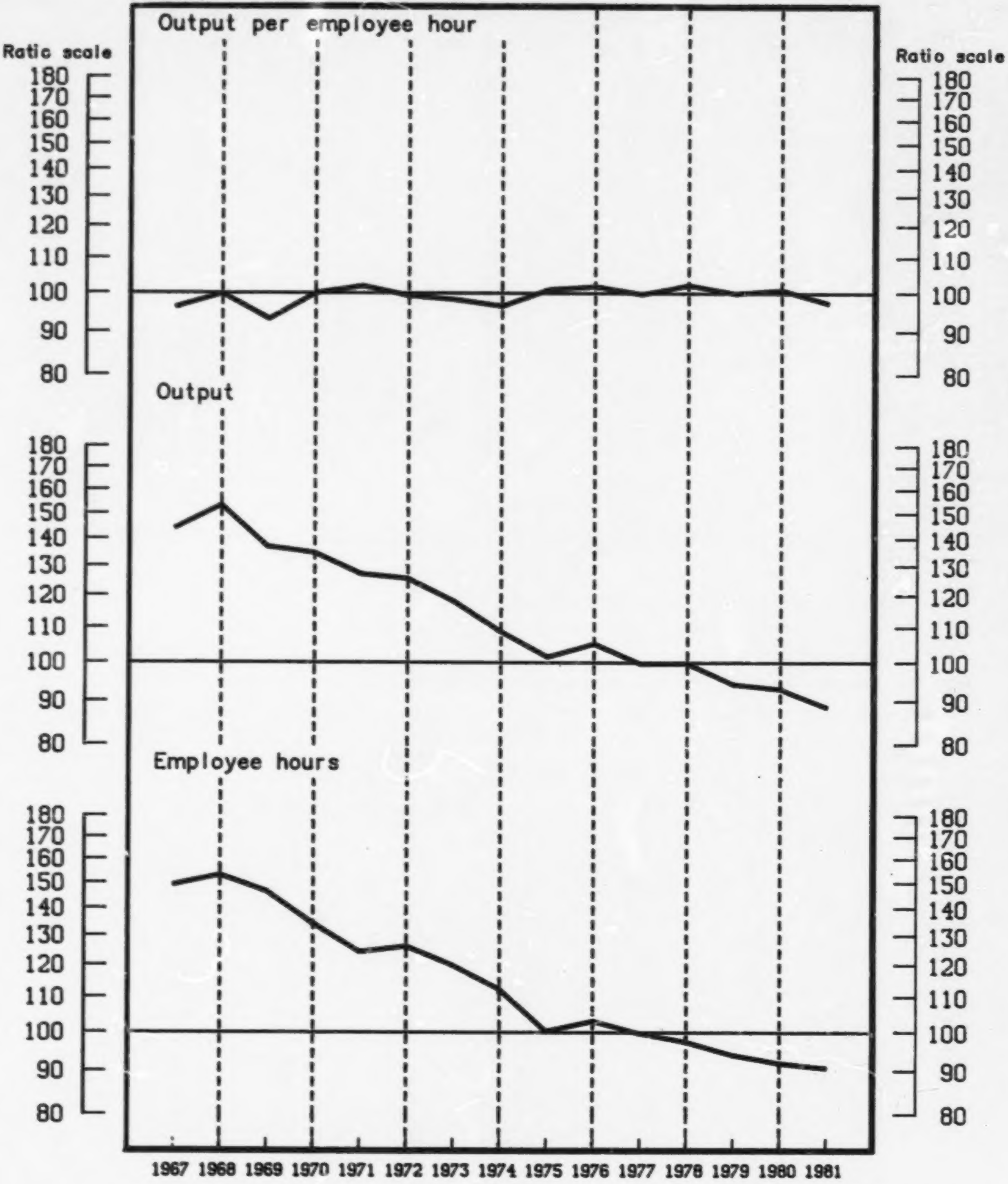
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	35.7	79.2	80.3	75.5	83.3	85.9	74.7
1955	44.5	92.8	97.2	78.9	88.7	92.2	78.6
1956	41.1	85.8	87.4	80.6	88.3	90.7	80.0
1957	43.1	85.3	86.5	81.2	87.0	88.9	80.6
1958	38.8	75.7	75.6	76.1	78.4	79.2	75.6
1959	47.5	81.5	82.4	75.4	82.9	85.2	75.0
1960	47.1	78.9	78.5	77.0	80.7	81.6	77.1
1961	45.6	74.0	73.4	76.3	75.6	75.1	77.3
1962	52.0	76.6	78.0	71.9	75.7	76.6	72.9
1963	54.1	74.2	74.7	72.8	74.8	75.0	73.8
1964	61.1	76.8	77.5	74.8	75.3	75.2	75.6
1965	64.9	79.8	80.3	78.6	77.7	77.2	79.7
1966	69.6	83.9	84.8	81.2	81.6	81.2	82.9
1967	64.7	78.2	77.4	81.2	81.3	80.6	82.9
1968	78.7	88.9	89.0	88.7	86.1	85.9	87.2
1969	80.3	94.0	94.4	92.7	90.2	90.0	90.6
1970	76.1	86.9	84.5	95.6	88.2	86.8	93.0
1971	85.6	90.8	89.4	98.0	92.0	91.1	94.5
1972	93.4	95.5	95.7	95.0	94.3	94.1	94.9
1973	94.4	99.3	98.0	104.1	100.5	100.0	102.3
1974	95.2	102.8	100.9	110.2	102.8	101.7	107.0
1975	82.7	90.1	86.6	103.5	93.1	90.5	101.5
1976	81.6	81.8	77.1	99.2	91.1	89.2	97.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	97.7	89.8	91.3	84.8	90.2	91.7	84.8
1979	95.7	87.4	87.7	86.7	90.5	91.7	86.3
1980	75.9	71.9	69.0	82.7	78.5	74.9	82.1
1981 [1]	82.4	68.9	66.4	78.1	71.5	69.6	77.8
Average annual percent change:							
1947-81	3.6	.1	-.1	1.0	.2	-.1	1.0
1976-81	-2.3	-5.2	-5.3	-4.9	-5.6	-5.8	-4.8

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Rubber Manufacturers Association and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 56. Footwear (SIC 314): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 109. Footwear (SIC 314): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	81.3	79.5	98.0	81.2	79.2	100.5
1955	85.1	83.2	103.0	88.0	86.0	105.1
1956	86.7	84.9	101.9	88.3	86.6	104.3
1957	88.3	86.9	99.9	89.1	87.5	102.2
1958	90.3	89.1	100.0	90.6	89.3	102.3
1959	94.9	93.0	110.5	97.2	95.5	113.0
1960	93.8	92.5	104.2	94.6	93.3	106.0
1961	94.2	92.8	105.5	94.6	93.2	106.1
1962	95.3	93.3	112.1	96.8	95.0	112.7
1963	98.7	96.5	116.7	100.6	98.6	119.3
1964	98.4	95.9	121.3	102.2	100.1	122.3
1965	97.9	95.5	119.5	101.1	99.0	120.2
1966	99.0	96.8	118.9	102.8	101.1	119.0
1967	96.5	94.4	116.9	99.7	97.8	117.0
1968	100.1	97.8	122.0	104.1	102.2	122.2
1969	93.4	92.0	105.7	95.2	93.9	106.9
1970	100.3	99.3	107.9	102.6	101.5	110.6
1971	102.2	101.9	105.0	104.6	104.1	108.1
1972	99.5	99.0	103.7	104.1	103.6	106.9
1973	98.5	98.3	99.7	101.5	101.2	103.1
1974	96.8	97.6	90.8	98.0	98.5	94.1
1975	101.3	101.6	98.3	101.8	101.9	100.7
1976	102.1	102.0	102.4	102.7	102.5	104.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	101.9	106.8	101.3	100.6	106.7
1979	100.2	101.0	94.8	99.4	99.9	95.1
1980	101.2	102.3	94.0	100.6	101.4	94.4
1981 [2]	97.6	98.0	93.8	96.4	96.7	94.1
Average annual percent change:						
1947-81	.9	1.0	.1	.9	1.0	.1
1976-81	-.6	-.4	-2.1	-.9	-.7	-2.3

---

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 110. Footwear (SIC 314): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	128.3	157.8	161.4	130.9	158.1	162.0	127.7
1955	141.2	165.9	169.8	137.1	160.4	164.1	134.4
1956	143.1	165.1	168.5	140.5	162.0	165.3	137.2
1957	143.8	162.9	165.5	144.0	161.4	164.3	140.7
1958	141.2	156.4	158.5	141.2	155.9	158.2	138.0
1959	155.2	163.5	166.8	140.5	159.6	162.5	137.3
1960	148.0	157.8	160.0	142.0	156.4	158.6	139.6
1961	148.6	157.8	160.2	140.9	157.0	159.4	140.0
1962	151.4	158.8	162.2	135.0	156.4	159.4	134.3
1963	147.1	149.0	152.4	123.9	146.2	149.2	123.3
1964	150.0	152.4	156.4	123.7	146.7	149.8	122.6
1965	151.3	154.6	158.5	126.6	149.7	152.9	125.9
1966	155.2	156.7	160.3	130.5	151.0	153.5	130.4
1967	144.5	149.7	153.1	123.6	144.9	147.7	123.5
1968	153.8	153.7	157.3	126.1	147.7	150.5	125.9
1969	137.3	147.0	149.3	129.9	144.2	146.2	128.4
1970	135.1	134.7	136.0	125.2	131.7	133.1	122.2
1971	127.5	124.7	125.1	121.4	121.9	122.5	117.9
1972	126.0	126.6	127.3	121.5	121.0	121.6	117.9
1973	118.4	120.2	120.4	118.8	116.7	117.0	114.8
1974	109.1	112.7	111.8	120.1	111.3	110.8	116.0
1975	101.9	100.6	100.3	103.7	100.1	100.0	101.2
1976	105.6	103.4	103.5	103.1	102.8	103.0	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.1	97.7	98.2	93.7	98.8	99.5	93.8
1979	94.5	94.3	93.6	99.7	95.1	94.6	99.4
1980	93.3	92.2	91.2	99.3	92.7	92.0	98.8
1981 [1]	88.8	91.0	90.6	94.7	92.1	91.8	94.4
Average annual percent change:							
1947-81	-.8	-1.8	-1.9	-1.1	-1.8	-1.9	-1.0
1976-81	-3.2	-2.6	-2.8	-1.1	-2.3	-2.5	-.9

---

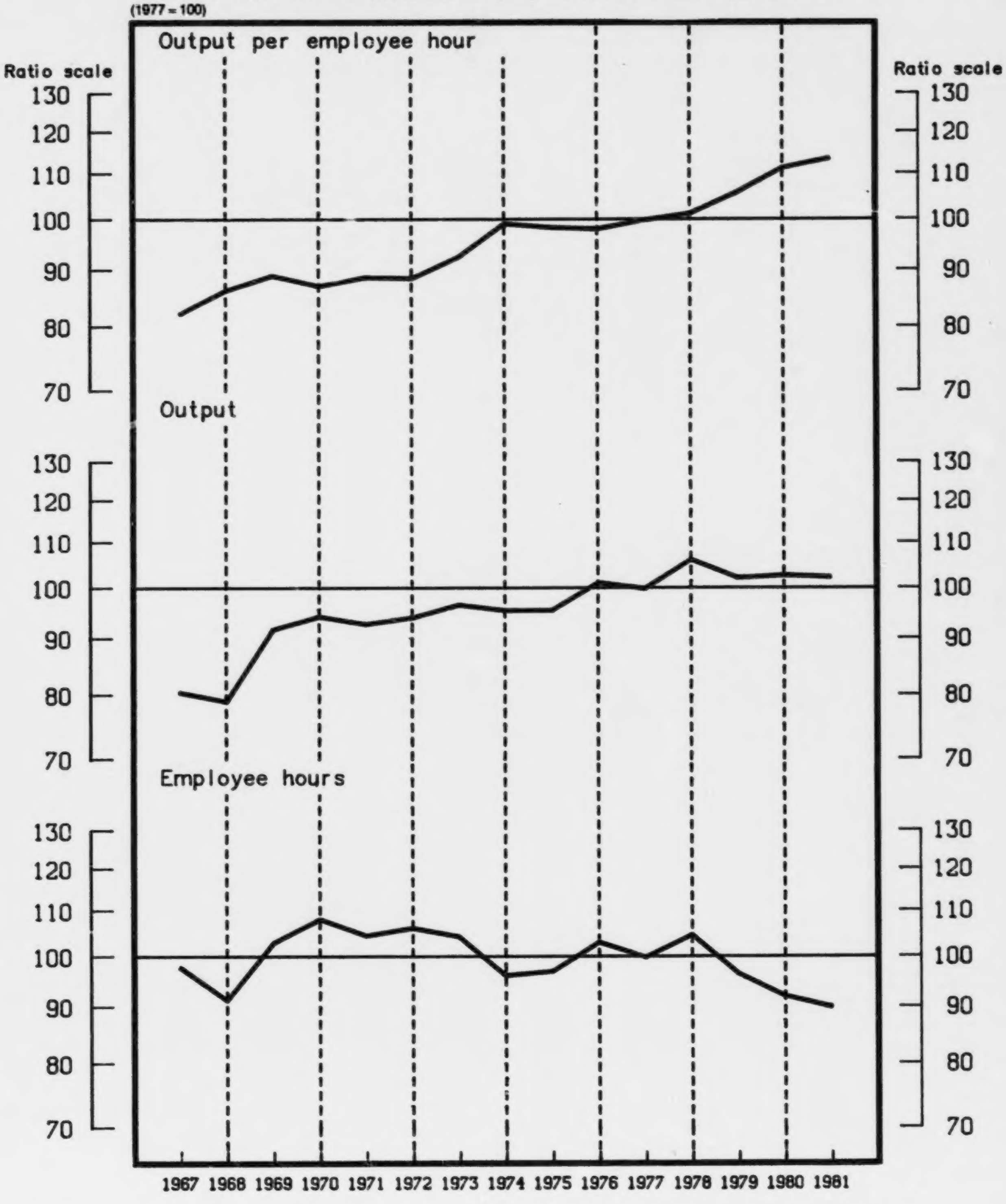
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 57. Glass containers (SIC 3221): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 111. Glass containers (SIC 3221): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	64.4	63.6	71.8	66.6	65.8	72.3
1955	67.2	65.8	78.1	69.9	69.0	78.2
1956	67.3	66.1	77.9	70.9	70.0	78.2
1957	67.0	66.0	78.3	69.8	69.0	78.5
1958	64.8	64.2	68.6	67.3	67.1	68.8
1959	68.8	67.9	75.6	70.3	69.8	75.7
1960	67.1	66.3	73.5	69.6	69.2	73.5
1961	68.4	67.3	76.7	70.4	69.7	76.4
1962	70.9	70.0	77.6	73.6	73.1	77.4
1963	73.5	72.3	82.5	76.2	75.4	82.2
1964	75.5	74.4	84.0	78.9	78.4	84.2
1965	80.3	79.2	88.8	82.7	82.1	88.5
1966	80.2	79.0	90.0	83.2	82.4	89.4
1967	82.3	81.1	93.0	85.6	84.8	91.6
1968	86.4	86.4	87.4	87.6	87.7	87.5
1969	89.1	88.7	92.5	91.0	90.5	95.3
1970	87.2	86.4	92.6	90.0	89.0	97.9
1971	88.8	88.7	89.0	91.1	90.9	92.9
1972	88.6	88.3	90.8	91.5	91.3	93.1
1973	92.6	92.5	93.2	93.7	93.7	93.3
1974	99.3	98.5	102.8	100.1	100.1	100.4
1975	98.5	98.5	98.1	96.7	96.7	96.6
1976	98.2	97.7	102.6	100.6	100.3	102.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	101.0	104.9	103.4	103.2	105.0
1979	106.7	106.5	107.6	107.8	107.7	108.3
1980	112.0	112.8	106.7	113.4	114.3	107.2
1981 [2]	113.9	114.3	110.3	115.7	116.3	110.6
Average annual percent change:						
1947-81	1.9	2.0	1.3	1.8	1.9	1.3
1976-81	3.3	3.5	1.7	3.2	3.4	1.8

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 112. Glass containers (SIC 3221): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

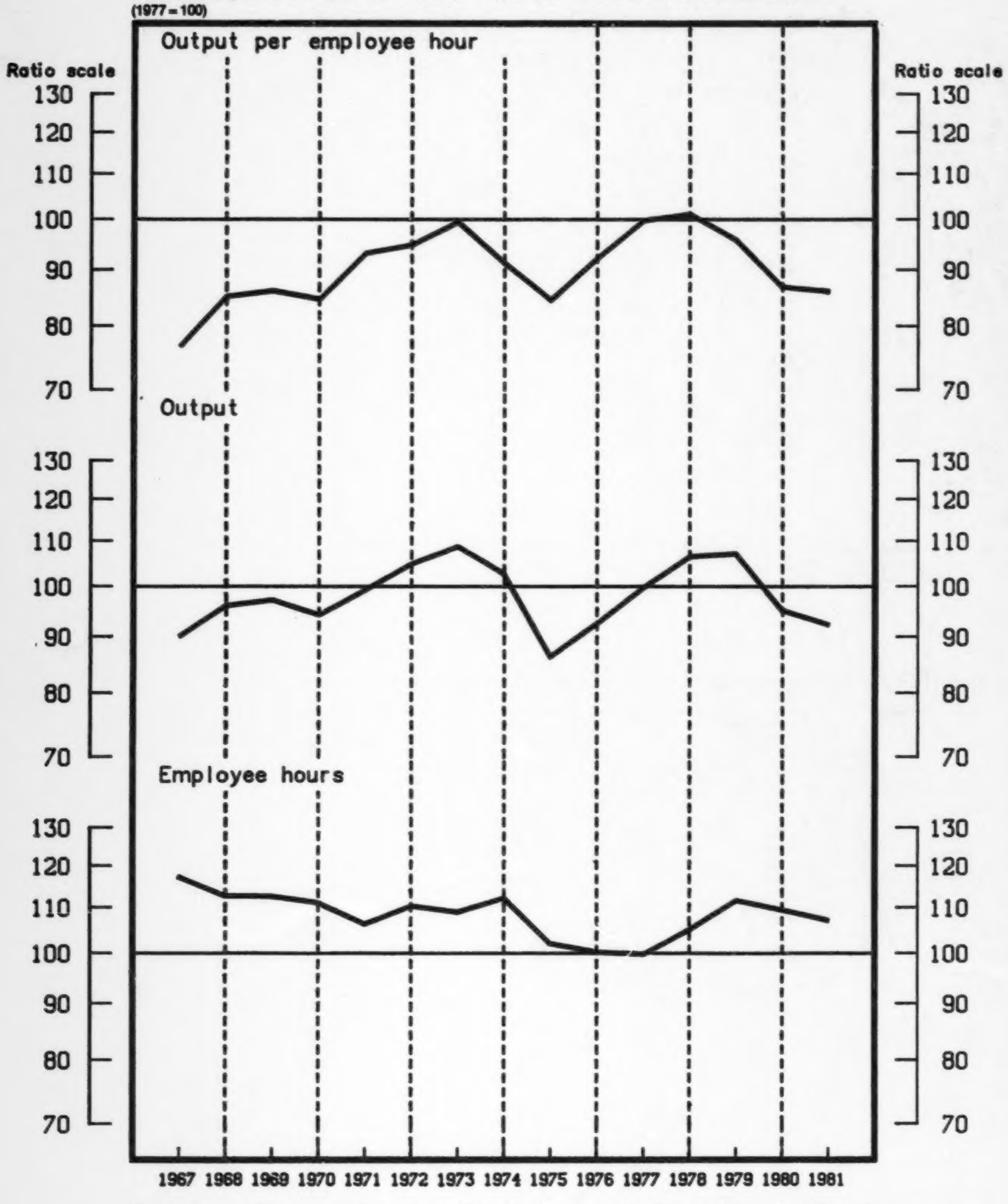
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	46.4	72.0	73.0	64.6	69.7	70.5	64.2
1955	50.5	75.2	76.7	64.7	72.2	73.2	64.6
1956	51.8	77.0	78.4	66.5	73.1	74.0	66.2
1957	53.5	79.8	81.1	70.1	76.6	77.5	69.9
1958	52.2	80.6	81.3	76.1	77.6	77.8	75.9
1959	55.9	81.3	82.3	73.9	79.5	80.1	73.8
1960	57.6	85.8	86.9	78.4	82.7	83.2	78.4
1961	59.8	87.4	88.8	78.0	85.0	85.8	78.3
1962	62.4	88.0	89.1	80.4	84.8	85.4	80.6
1963	64.5	87.8	89.2	78.2	84.7	85.6	78.5
1964	67.4	89.3	90.6	80.2	85.4	86.0	80.0
1965	71.9	89.5	90.8	81.0	86.9	87.6	81.2
1966	75.7	94.4	95.8	84.1	91.0	91.9	84.7
1967	80.6	97.9	99.4	86.7	94.2	95.0	88.0
1968	79.1	91.5	91.6	90.5	90.3	90.2	90.4
1969	91.9	103.1	103.6	99.4	101.0	101.6	96.4
1970	94.4	108.3	109.2	101.9	104.9	106.1	96.4
1971	92.9	104.6	104.7	104.4	102.0	102.2	100.0
1972	94.2	106.3	106.7	103.8	103.0	103.2	101.2
1973	96.7	104.4	104.5	103.8	103.2	103.2	103.6
1974	95.6	96.3	96.8	93.0	95.5	95.5	95.2
1975	95.6	97.1	97.1	97.5	96.9	98.9	98.8
1976	101.3	103.2	103.7	98.7	100.7	101.0	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.3	104.8	105.2	101.3	102.8	103.0	101.2
1979	103.1	96.6	96.8	95.6	95.6	95.7	95.2
1980	103.3	92.2	91.6	96.6	91.1	90.4	96.4
1981 [1]	102.6	90.1	89.6	93.0	88.7	88.2	92.8
Average annual percent change:							
1947-81	3.4	1.4	1.3	2.0	1.5	1.5	2.1
1976-81	.4	-2.8	-3.0	-1.3	-2.6	-3.0	-1.4

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 58. Hydraulic cement (SIC 3241): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 113. Hydraulic cement (SIC 3241): Indexes of output per employee hour and output per employee, 1954–81
(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	46.8	43.6	67.7	48.9	45.6	68.3
1955	49.4	45.8	75.2	51.8	48.0	75.3
1956	51.9	48.1	79.4	53.8	49.7	79.9
1957	50.4	47.1	73.1	50.0	46.3	73.5
1958	52.1	49.4	68.3	52.6	49.6	68.5
1959	55.9	52.5	77.6	57.2	53.6	77.8
1960	55.3	52.5	72.5	55.9	52.9	72.7
1961	61.2	58.4	76.7	61.2	58.2	76.5
1962	64.9	62.2	79.9	65.0	62.1	80.0
1963	68.7	66.7	79.3	69.3	67.2	79.3
1964	71.0	70.1	75.7	72.6	71.8	76.0
1965	73.2	72.3	77.3	73.7	72.8	77.3
1966	76.7	76.1	80.1	78.2	77.7	79.6
1967	76.9	76.4	79.1	77.0	76.5	79.0
1968	85.3	84.2	90.3	86.9	85.8	91.4
1969	86.3	85.5	90.6	89.0	87.8	94.1
1970	84.8	85.0	84.1	86.9	86.3	89.6
1971	93.4	93.3	95.0	96.1	95.2	98.5
1972	95.0	93.9	100.4	97.4	96.1	103.2
1973	99.7	98.7	104.9	102.0	101.1	105.2
1974	91.5	90.5	96.5	92.3	91.7	94.5
1975	84.7	85.3	82.7	83.9	84.3	82.2
1976	92.4	93.3	89.4	91.8	92.3	89.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.3	101.0	102.8	103.4	103.4	103.0
1979	96.0	94.9	100.7	98.1	97.2	101.8
1980	87.0	87.4	84.9	87.1	87.4	86.1
1981 [2]	84.9	86.4	79.1	84.4	85.7	79.7
Average annual percent change:						
1947-81	3.4	3.8	1.6	3.3	3.6	1.6
1976-81	-2.5	-2.4	-3.2	-2.5	-2.4	-3.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 114. Hydraulic cement (SIC 3241): Indexes of output, employee hours, and employees, 1954–81
(1977=100)

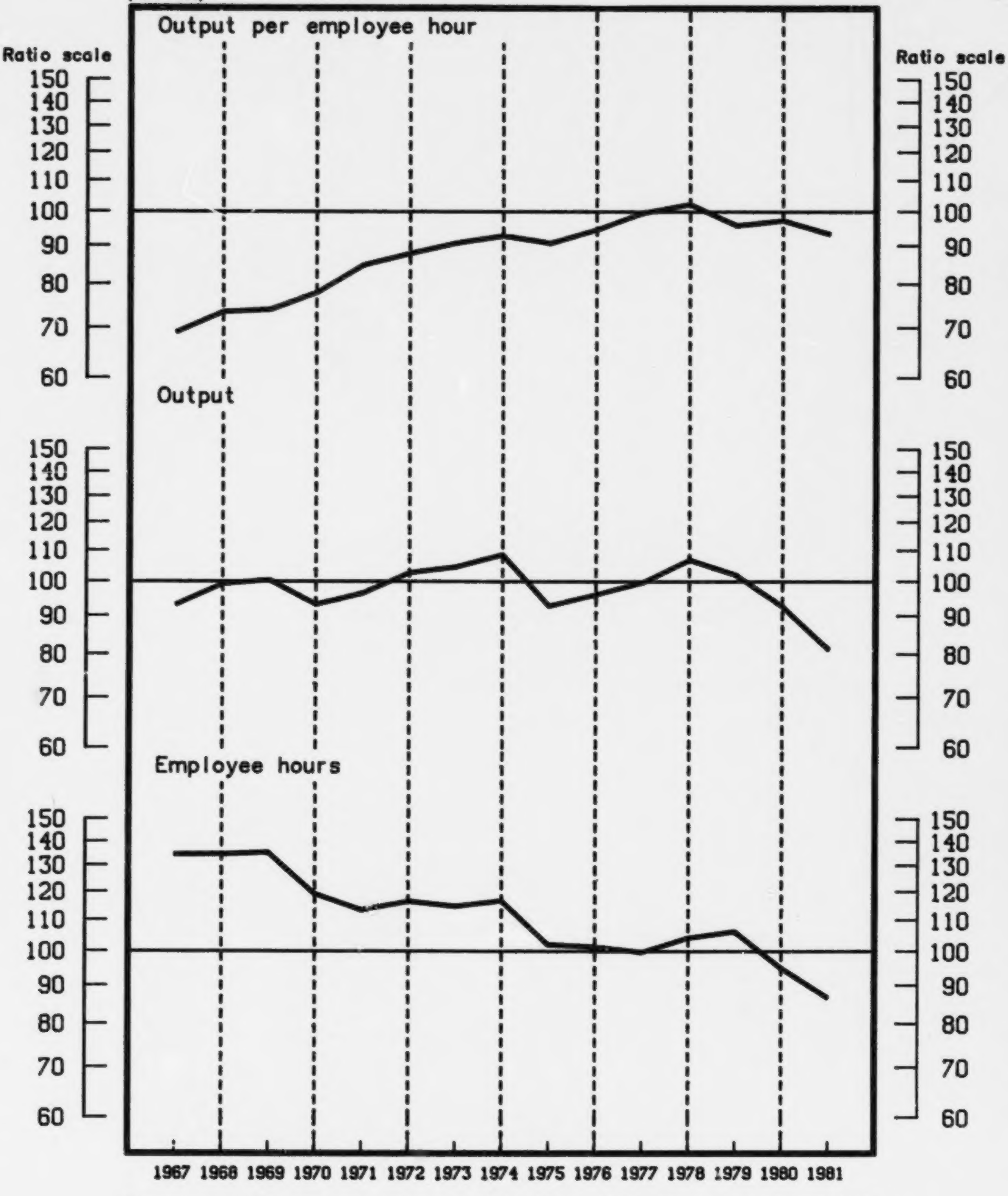
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	69.9	149.5	160.4	103.2	143.0	153.2	102.3
1955	76.0	153.8	166.1	101.1	146.7	158.2	100.9
1956	80.1	154.2	166.7	100.9	149.0	161.3	100.3
1957	74.7	148.2	158.7	102.2	149.5	161.5	101.7
1958	77.7	149.0	157.2	113.7	147.8	158.7	113.4
1959	84.6	151.4	161.1	109.0	147.9	157.9	108.8
1960	79.2	143.2	150.9	109.2	141.6	149.8	109.0
1961	80.0	130.8	137.0	104.3	130.8	137.5	104.6
1962	83.1	128.1	133.7	104.0	127.8	133.8	103.9
1963	86.9	126.4	130.3	109.6	125.4	129.3	109.6
1964	90.5	127.4	129.1	119.5	124.6	126.0	119.1
1965	91.5	125.0	126.5	118.4	124.2	125.7	118.4
1966	94.3	122.9	123.9	117.6	120.6	121.3	118.4
1967	90.3	117.5	118.2	114.2	117.2	118.1	114.3
1968	96.3	112.9	114.4	106.6	110.8	112.2	105.4
1969	97.4	112.8	113.9	107.5	109.4	110.9	103.5
1970	94.4	111.3	111.0	112.2	108.6	109.4	105.4
1971	99.5	106.5	106.7	104.7	103.5	104.5	100.0
1972	105.1	110.6	111.9	104.7	107.9	109.4	101.8
1973	108.9	109.2	110.3	103.8	106.8	107.7	103.5
1974	102.9	112.5	113.7	106.6	111.5	112.2	108.9
1975	86.6	102.2	101.5	104.7	103.2	102.7	105.4
1976	92.8	100.4	99.5	103.6	101.1	100.5	103.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.7	105.3	105.6	103.8	103.2	103.2	103.6
1979	107.3	111.8	113.1	106.6	109.4	110.4	105.4
1980	95.3	109.6	109.0	112.3	109.4	109.0	110.7
1981 [1]	91.1	107.3	105.4	115.1	107.9	106.3	114.3
Average annual percent change:							
1947-81	1.8	-1.6	-1.9	.2	-1.4	-1.8	.2
1976-81	-.7	1.9	1.8	2.6	1.9	1.7	2.4

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 59. Structural clay products (SIC 325): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 115. Structural clay products (SIC 325): Indexes of output per employee hour and output per employee, 1958–81
(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	52.4	50.2	65.1	51.8	49.4	64.8
1959	56.4	53.5	73.6	56.4	53.4	73.3
1960	57.9	55.2	73.9	57.0	54.2	73.5
1961	59.9	57.0	77.7	59.0	55.9	76.8
1962	64.6	61.3	84.3	64.3	60.9	83.6
1963	62.1	59.5	76.8	62.8	60.3	76.2
1964	66.3	64.2	78.0	69.0	67.1	77.6
1965	67.5	64.9	82.6	68.7	66.3	81.7
1966	68.8	66.1	84.1	70.3	67.8	83.1
1967	69.3	67.7	77.3	69.8	68.4	76.4
1968	73.7	72.4	80.3	74.9	73.7	80.6
1969	74.2	73.2	79.3	75.9	74.7	81.6
1970	78.2	79.7	71.8	79.9	80.9	75.8
1971	85.1	87.0	77.6	87.1	88.6	80.6
1972	88.2	87.3	92.4	89.7	88.8	94.2
1973	91.1	88.5	104.9	91.9	89.3	104.9
1974	93.1	91.2	102.1	94.0	92.8	99.6
1975	91.0	92.0	86.7	90.0	91.1	85.1
1976	94.9	96.1	89.3	93.0	93.9	89.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	100.8	111.3	104.0	102.5	111.1
1979	96.1	96.5	94.3	94.5	94.4	94.6
1980	97.6	101.0	84.6	96.7	99.8	85.0
1981 [2]	93.6	96.7	81.4	93.1	96.4	81.4
Average annual percent change:						
1958-81	2.0	3.2	1.3	2.9	3.2	1.3
1976-81	-.6	(3)	-3.2	-.5	.1	-3.1

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 116. Structural clay products (SIC 325): Indexes of output, employee hours, and employees, 1958–81
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	80.8	154.1	160.9	124.1	156.1	163.4	124.7
1959	94.9	168.4	177.3	128.9	168.4	177.6	129.5
1960	95.2	164.5	172.4	128.9	166.9	175.7	129.5
1961	94.9	158.4	166.6	122.1	160.9	169.7	123.6
1962	100.4	155.5	163.7	119.1	156.2	164.8	120.1
1963	90.5	145.7	152.1	117.8	144.0	150.0	118.8
1964	99.6	150.2	155.2	127.7	144.4	148.4	128.3
1965	101.9	150.9	156.9	123.3	148.3	153.8	124.7
1966	101.7	147.8	153.9	120.9	144.7	150.0	122.4
1967	93.5	135.0	138.1	120.9	133.9	136.6	122.4
1968	99.6	135.1	137.6	124.1	132.9	135.2	123.6
1969	100.8	135.8	137.7	127.1	132.8	135.0	123.6
1970	93.5	119.6	117.3	130.2	117.0	115.6	123.6
1971	96.8	113.8	111.3	124.7	111.2	109.3	120.1
1972	103.1	116.9	118.1	111.6	114.9	116.1	109.4
1973	104.9	115.1	118.5	100.0	114.2	117.5	100.0
1974	109.0	117.1	119.5	106.8	115.9	117.5	109.4
1975	93.1	102.3	101.2	107.4	103.5	102.2	109.4
1976	96.4	101.6	100.3	108.0	103.7	102.7	108.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.2	104.5	106.3	96.3	103.1	104.6	96.5
1979	102.4	106.6	106.1	108.6	108.4	108.5	108.2
1980	93.0	95.3	92.1	109.9	96.2	93.2	109.4
1981 [1]	81.4	87.0	84.2	100.0	87.4	84.4	100.0
Average annual percent change:							
1958-81	.2	-2.6	-3.0	-1.0	-2.6	-2.9	-1.1
1976-81	-3.1	-2.5	-3.2	.1	-2.6	-3.2	(2)

[1] Preliminary.

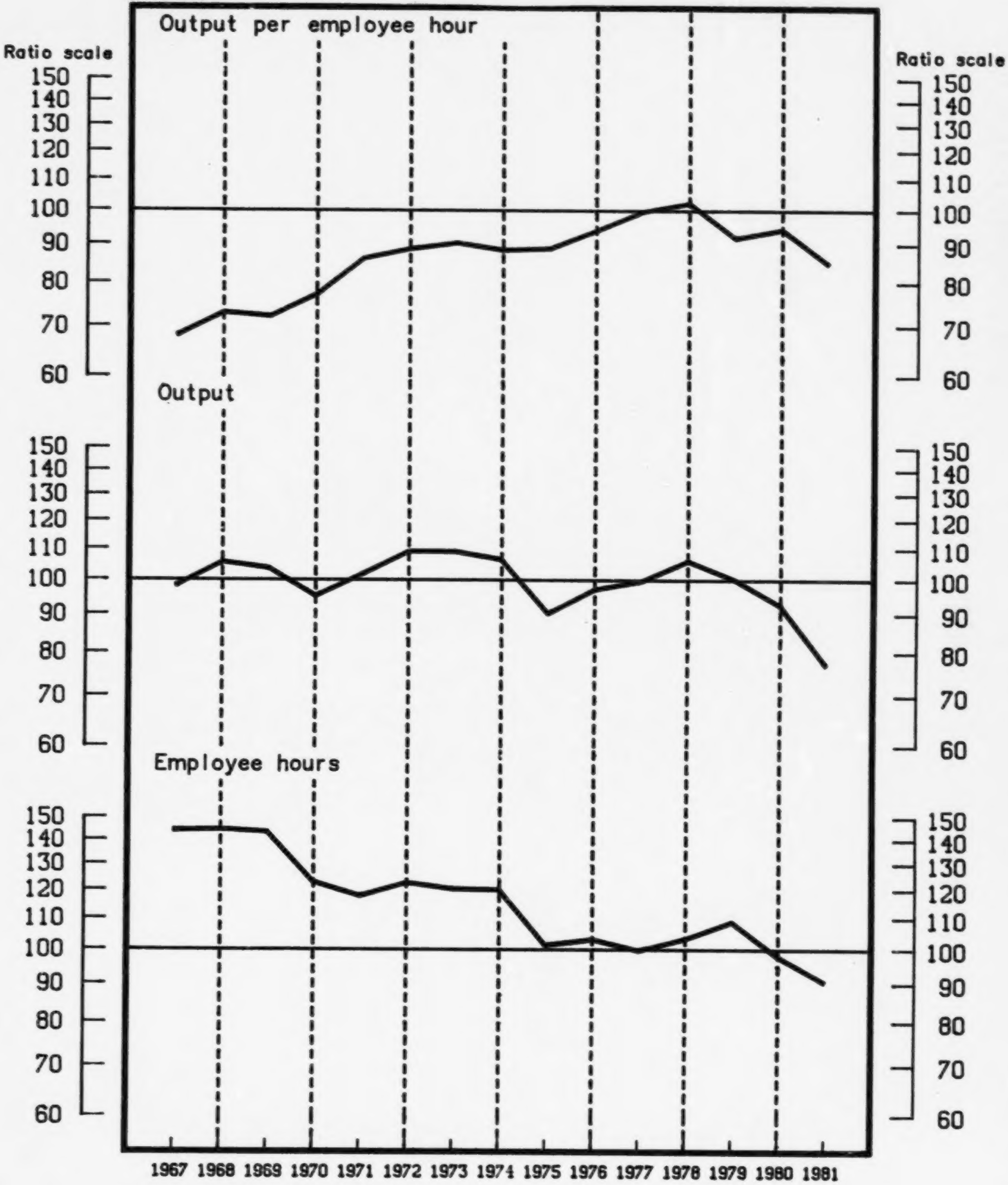
[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 60. Clay construction products (SIC 3251, 3253, 3259): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 117. Clay construction products (SIC 3251, 3253, 3259): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	52.0	50.1	64.4	52.0	49.9	64.5
1959	55.5	53.5	68.1	56.6	54.7	68.1
1960	57.5	55.7	68.8	57.8	56.0	68.5
1961	59.0	56.9	72.8	59.3	57.1	72.2
1962	63.7	61.3	79.3	64.8	62.3	79.1
1963	60.9	58.8	73.5	62.2	60.3	73.0
1964	65.1	63.6	74.0	68.3	67.3	73.8
1965	66.6	64.6	78.5	68.1	66.4	78.2
1966	67.3	65.2	80.7	69.5	67.7	80.0
1967	68.2	66.9	75.4	69.7	68.6	74.7
1968	73.1	71.6	81.0	75.0	73.8	81.5
1969	72.3	71.2	78.5	74.9	73.7	80.9
1970	77.4	78.3	73.0	79.6	80.1	77.2
1971	86.4	87.2	82.5	89.3	90.2	86.2
1972	89.0	87.5	96.7	91.2	89.6	99.5
1973	90.6	88.3	104.0	91.5	89.2	104.2
1974	88.7	87.4	96.6	90.2	89.4	94.2
1975	89.1	89.9	86.0	89.5	90.5	84.8
1976	94.2	95.1	90.3	93.0	93.8	89.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	100.8	112.4	103.6	102.0	112.0
1979	92.1	92.9	88.2	92.4	93.2	88.6
1980	94.6	97.5	82.7	94.9	97.8	83.2
1981 [2]	85.1	88.7	71.0	86.3	90.3	71.4
Average annual percent change:						
1958-81	2.8	3.1	1.4	2.7	3.0	1.4
1976-81	-2.2	-1.4	-5.6	-1.8	-1.0	-5.4

---

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 118. Clay construction products (SIC 3251, 3253, 3259): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	89.3	171.7	178.4	138.6	171.6	178.8	138.5
1959	104.5	188.2	195.3	153.5	184.6	191.2	153.5
1960	105.1	182.7	188.8	152.7	181.8	187.7	153.5
1961	104.8	177.5	184.2	143.9	176.7	183.4	145.1
1962	112.1	175.9	182.8	141.3	173.1	179.8	141.8
1963	98.6	162.0	167.6	134.2	158.6	163.6	135.0
1964	108.4	166.5	170.4	146.5	158.6	161.1	146.8
1965	109.5	164.3	169.4	139.5	160.7	165.0	140.1
1966	108.8	158.7	163.9	132.4	153.6	157.8	133.5
1967	98.5	144.5	147.3	130.7	141.4	143.5	131.8
1968	105.9	144.9	147.9	130.7	141.2	143.5	130.0
1969	103.9	143.8	145.9	132.4	138.8	140.9	128.5
1970	95.4	123.3	121.8	130.7	119.8	119.1	123.5
1971	102.1	118.2	117.1	123.7	114.3	113.2	118.4
1972	109.5	123.1	125.2	113.2	120.1	122.2	110.0
1973	109.4	120.8	123.9	105.2	119.5	122.7	105.0
1974	108.8	120.4	122.2	110.6	118.4	119.4	113.4
1975	90.5	101.6	100.7	105.2	101.1	100.0	106.7
1976	97.5	103.5	102.5	108.0	104.8	103.9	108.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	103.7	105.6	94.7	102.7	104.3	95.0
1979	100.6	109.2	108.3	114.0	108.9	107.9	113.3
1980	92.9	98.2	95.3	112.3	97.9	95.0	111.7
1981 [1]	77.3	90.8	87.1	108.8	89.6	85.6	108.3
Average annual percent change:							
1958-81	-.4	-3.1	-3.4	-1.8	-3.1	-3.3	-1.8
1976-81	-4.0	-1.9	-2.6	1.6	-2.2	-3.1	1.4

---

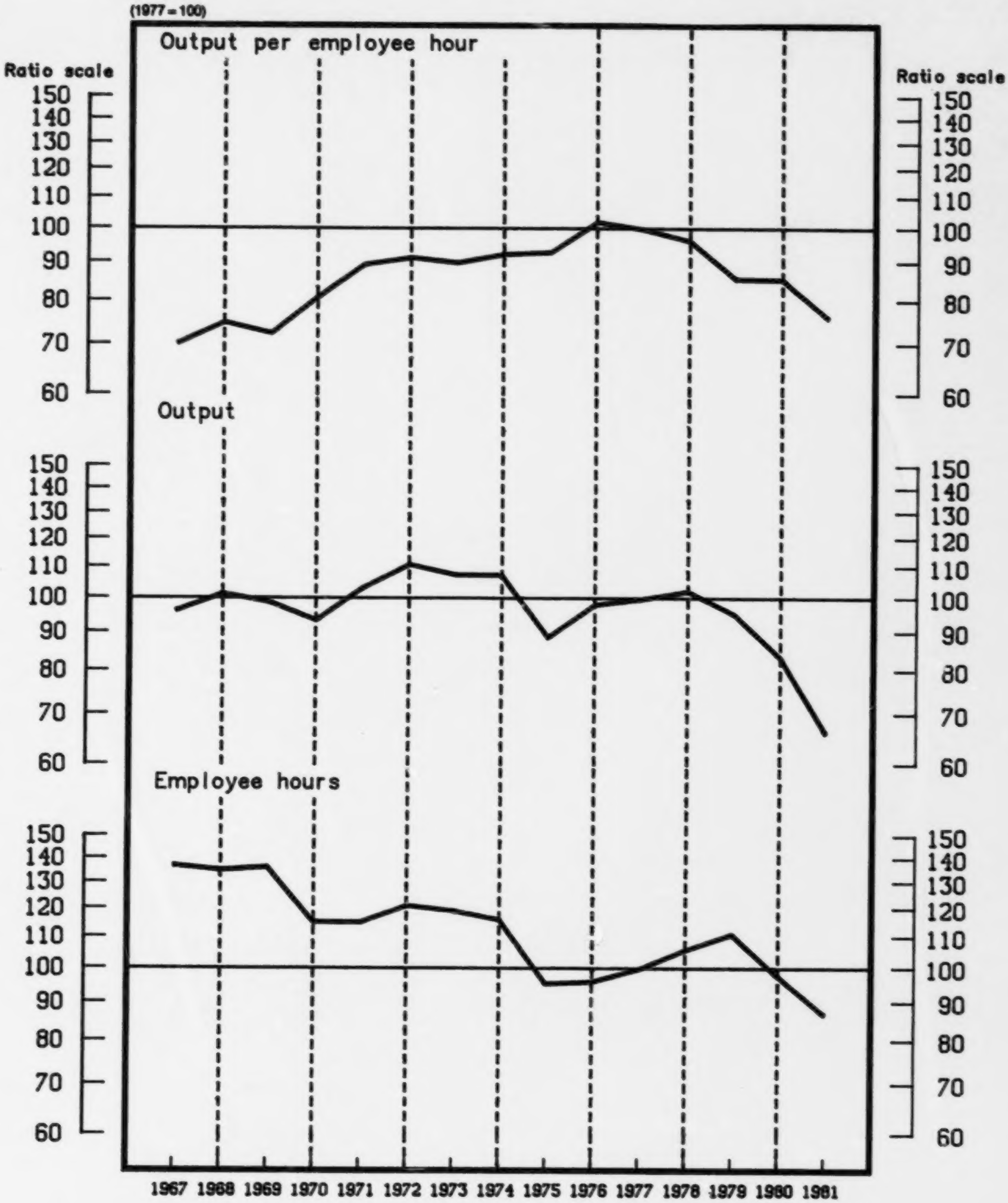
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 61. Brick and structural clay tile (SIC 3251): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 119. Brick and structural clay tile (SIC 3251): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	55.4	52.9	73.8	56.6	54.1	73.3
1959	59.3	56.2	82.8	60.9	57.9	82.5
1960	62.9	60.5	79.1	62.9	60.6	78.3
1961	64.6	61.3	88.8	64.7	61.4	87.3
1962	69.2	65.8	94.2	70.5	67.3	92.7
1963	63.3	60.6	82.5	65.3	62.8	81.8
1964	68.7	66.2	85.9	72.0	69.9	85.6
1965	70.5	67.7	89.8	72.6	70.1	88.2
1966	71.4	68.3	92.8	74.4	71.7	91.0
1967	70.3	68.5	81.8	71.8	70.4	80.3
1968	75.0	73.1	87.3	76.5	74.8	86.7
1969	72.5	71.0	80.9	75.4	74.2	82.5
1970	81.1	81.1	81.5	82.4	81.7	86.3
1971	89.6	90.2	87.7	92.5	93.1	90.5
1972	91.5	89.5	103.4	94.5	92.6	105.0
1973	90.1	88.1	103.1	91.9	90.3	101.8
1974	92.5	90.6	104.6	94.2	92.9	101.7
1975	93.1	93.2	93.2	93.5	94.0	91.6
1976	102.2	103.6	96.8	98.6	100.8	95.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.5	94.9	105.6	97.2	95.6	105.5
1979	85.8	88.0	76.2	85.5	87.8	76.0
1980	85.6	91.2	65.2	85.0	90.6	65.1
1981 [2]	76.1	83.4	52.8	75.4	82.7	52.7
Average annual percent change:						
1958-81	2.1	2.6	-.1	2.0	2.4	-.1
1976-81	-5.7	-4.0	-12.4	-5.6	-3.8	-12.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 120. Brick and structural clay tile (SIC 3251): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	85.9	155.1	162.5	116.4	151.8	158.8	117.2
1959	101.4	170.9	180.3	122.4	166.4	175.2	122.9
1960	105.1	167.2	173.8	132.9	167.0	173.4	134.3
1961	107.3	166.1	174.9	120.9	165.9	174.7	122.9
1962	113.9	164.7	173.2	120.9	161.6	169.3	122.9
1963	91.2	144.0	150.6	110.5	139.6	145.2	111.5
1964	102.7	149.5	155.2	119.5	142.6	147.0	120.0
1965	105.9	150.2	156.5	117.9	145.9	151.1	120.0
1966	106.7	149.5	156.2	115.0	143.5	148.8	117.2
1967	96.4	137.2	140.8	117.9	134.2	137.0	120.0
1968	101.6	135.4	139.0	116.4	132.8	135.8	117.2
1969	99.0	136.6	139.4	122.4	131.3	133.4	120.0
1970	93.7	115.5	115.5	115.0	113.7	114.7	108.6
1971	103.4	115.4	114.6	117.9	111.8	111.1	114.3
1972	111.1	121.4	124.1	107.4	117.6	120.0	105.8
1973	107.7	119.5	122.3	104.5	117.2	119.3	105.8
1974	107.6	116.3	118.7	102.9	114.2	115.8	105.8
1975	89.0	95.6	95.5	95.5	95.2	94.7	97.2
1976	98.3	96.2	94.9	101.5	99.7	97.5	102.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.4	106.1	107.9	97.0	105.4	107.1	97.1
1979	95.5	111.3	108.5	125.4	111.7	108.8	125.7
1980	83.7	97.8	91.8	128.4	98.5	92.4	128.6
1981 [1]	66.2	87.0	79.4	125.4	87.8	80.0	125.7
Average annual percent change:							
1958-81	-.6	-2.7	-3.1	-.5	-2.6	-3.0	-.5
1976-81	-7.1	-1.5	-3.2	6.1	-1.6	-3.4	5.9

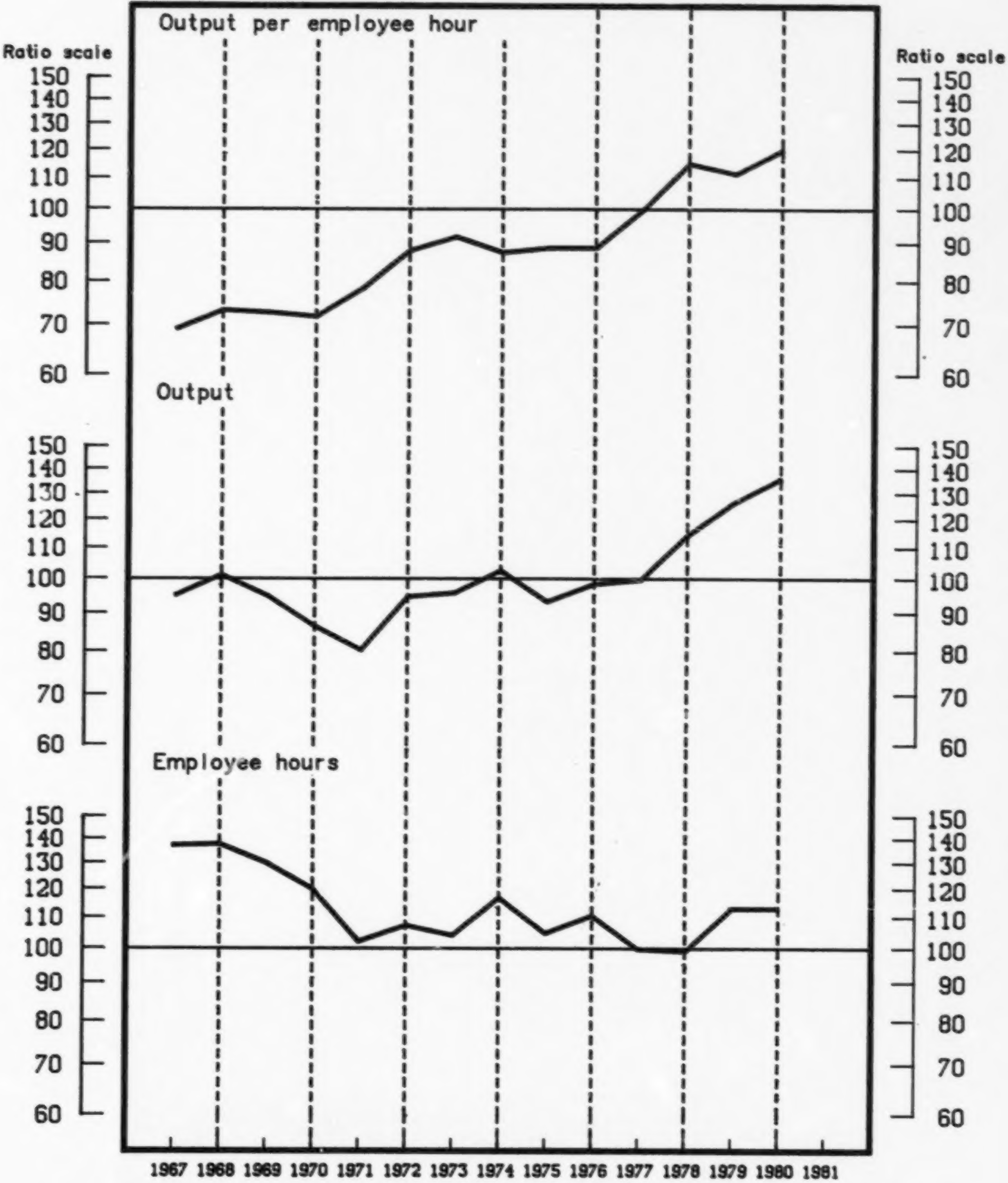
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 62. Ceramic wall and floor tile (SIC 3253): Output per hour and related data, 1967-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 121. Ceramic wall and floor tile (SIC 3253): Indexes of output per employee hour and output per employee, 1958-80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	49.6	48.2	56.8	49.0	47.5	56.0
1959	53.9	53.3	56.8	54.1	53.8	55.5
1960	52.4	52.2	53.3	53.0	53.2	52.1
1961	55.8	56.4	52.7	55.2	56.1	51.4
1962	61.4	60.7	64.3	61.6	61.4	62.6
1963	60.2	59.5	63.0	59.5	59.1	61.0
1964	62.8	63.2	60.7	63.5	64.6	59.2
1965	64.1	63.5	66.6	64.2	64.1	64.8
1966	64.9	63.9	69.2	65.9	65.6	66.7
1967	69.3	69.3	68.1	70.1	70.6	68.0
1968	73.4	74.3	70.1	74.7	76.1	69.1
1969	72.9	73.3	70.7	73.4	74.0	71.3
1970	72.0	74.4	62.9	74.4	78.9	65.0
1971	78.6	78.8	77.9	79.6	79.3	80.6
1972	88.2	86.7	94.9	89.2	87.9	94.9
1973	92.0	89.7	103.1	91.3	89.9	102.8
1974	87.7	87.1	90.3	87.2	87.5	85.7
1975	89.0	91.4	79.8	87.9	90.6	77.9
1976	89.0	88.9	89.5	88.5	88.8	87.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.3	112.0	132.9	117.7	114.6	132.2
1979	111.8	108.9	128.8	113.7	110.9	126.8
1980 [2]	120.3	117.2	136.4	122.3	119.3	136.4
Average annual percent change:						
1958-80	3.8	3.8	4.0	3.9	3.8	4.1
1976-80	7.4	6.6	11.4	8.1	7.2	12.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 122. Ceramic wall and floor tile (SIC 3253): Indexes of output, employee hours, and employees, 1958-80

(1977=100)

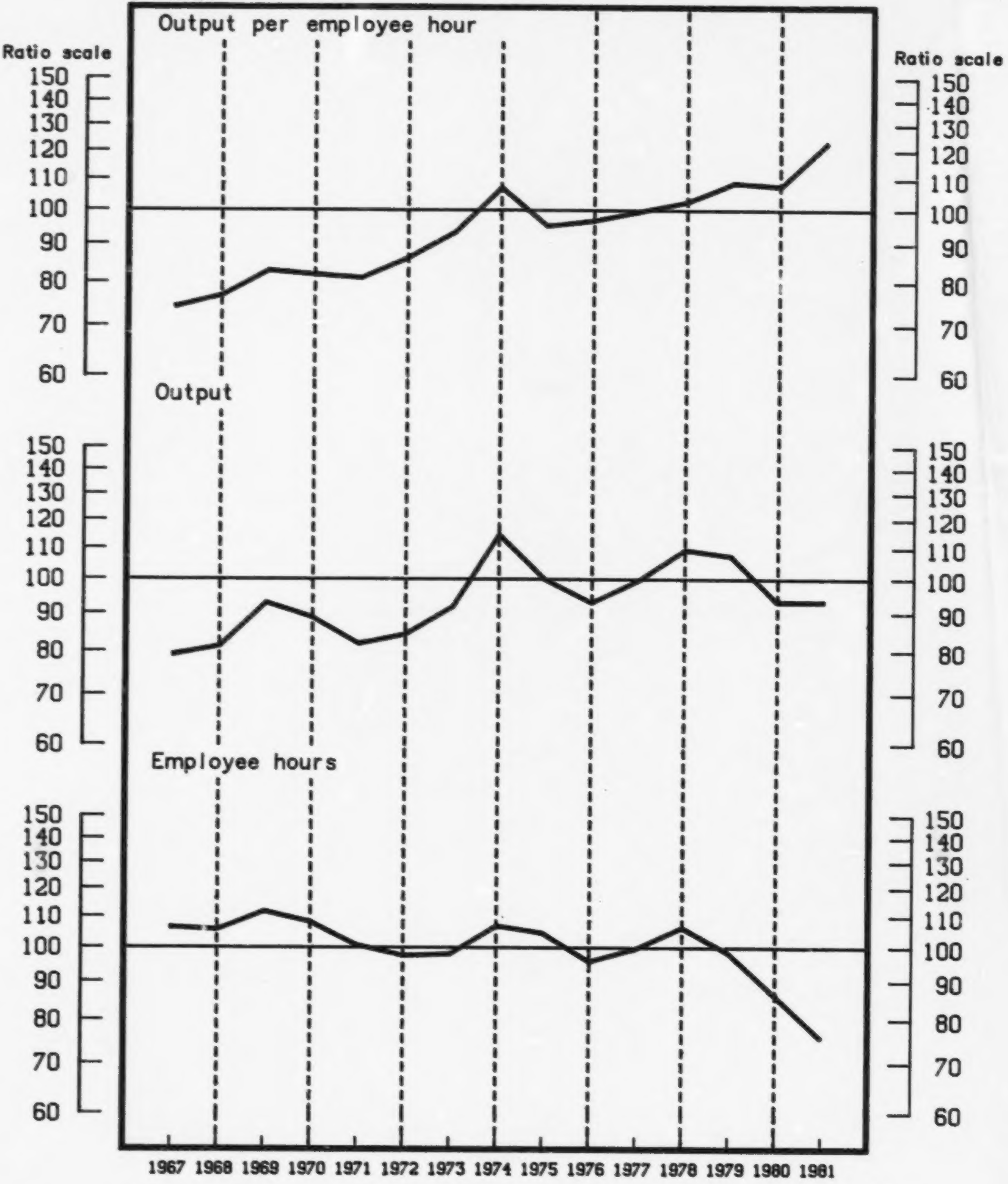
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	82.2	165.6	170.4	144.8	167.9	173.0	146.8
1959	99.9	185.3	187.6	175.9	184.5	185.7	180.1
1960	93.8	179.0	179.8	175.9	176.9	176.2	180.1
1961	89.1	159.8	157.9	169.0	161.5	158.7	173.4
1962	104.3	170.0	171.9	162.1	169.2	169.9	166.7
1963	97.7	162.4	164.1	155.2	164.1	165.2	160.1
1964	106.7	170.0	168.8	175.9	167.9	165.2	180.1
1965	103.7	161.8	163.4	155.2	161.5	161.9	160.1
1966	97.9	150.9	153.2	141.4	148.6	149.3	146.8
1967	95.3	137.6	137.6	137.9	135.9	135.0	140.1
1968	101.5	138.2	136.7	144.8	135.9	133.3	146.8
1969	95.1	130.5	129.7	134.5	129.5	128.6	133.3
1970	86.7	120.4	116.5	137.9	116.6	112.7	133.3
1971	80.6	102.5	102.3	103.4	101.2	101.6	100.0
1972	94.9	107.6	109.4	100.0	106.4	108.0	100.0
1973	96.0	104.4	107.0	93.1	105.2	108.0	93.4
1974	102.8	117.2	118.0	113.8	117.9	117.5	120.0
1975	93.5	105.1	102.3	117.2	106.4	103.2	120.0
1976	98.7	110.9	111.0	110.3	111.5	111.2	113.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	114.6	99.4	102.3	86.2	97.4	100.0	86.7
1979	126.8	113.4	116.4	100.0	111.5	114.3	100.0
1980 [1]	136.4	113.4	116.4	100.0	111.5	114.3	100.0
Average annual percent change:							
1958-80	.9	-2.8	-2.8	-3.0	-2.9	-2.8	-3.1
1976-80	9.2	1.7	2.5	-1.9	1.1	1.9	-2.5

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 63. Clay refractories (SIC 3255): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 123. Clay refractories (SIC 3255): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	53.7	52.2	60.2	50.3	48.1	60.0
1959	59.6	54.3	92.4	54.4	48.8	90.8
1960	59.3	54.1	91.9	52.9	47.3	90.4
1961	63.6	58.8	91.4	56.7	51.3	89.9
1962	67.7	62.6	96.6	60.7	55.0	94.7
1963	67.2	63.9	83.0	65.1	61.5	82.1
1964	72.0	68.6	88.0	71.4	67.9	87.3
1965	71.6	67.7	90.9	71.4	67.3	90.5
1966	75.6	72.0	93.4	73.8	70.0	91.1
1967	74.4	72.8	81.1	71.2	69.2	79.4
1968	77.0	77.5	75.3	74.9	74.7	75.5
1969	83.1	83.7	81.3	81.0	80.3	83.2
1970	82.1	86.7	69.0	81.9	85.2	71.9
1971	81.3	88.2	63.5	79.9	84.9	66.2
1972	86.5	89.7	76.6	85.4	87.5	78.3
1973	93.6	91.0	105.0	93.7	91.0	104.5
1974	107.5	104.6	120.1	105.9	103.4	115.2
1975	95.5	97.5	89.1	90.6	91.8	86.4
1976	97.1	100.2	87.8	92.5	94.3	86.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.9	101.2	109.8	105.2	103.9	109.8
1979	109.1	108.4	112.4	100.6	97.7	112.2
1980	108.0	114.3	89.7	102.5	106.9	89.9
1981 [2]	123.3	124.8	118.2	116.3	116.0	117.0
Average annual percent change:						
1958-81	3.1	3.6	1.1	3.4	3.9	1.2
1976-81	4.3	4.6	3.4	3.4	3.4	3.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 124. Clay refractories (SIC 3255): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

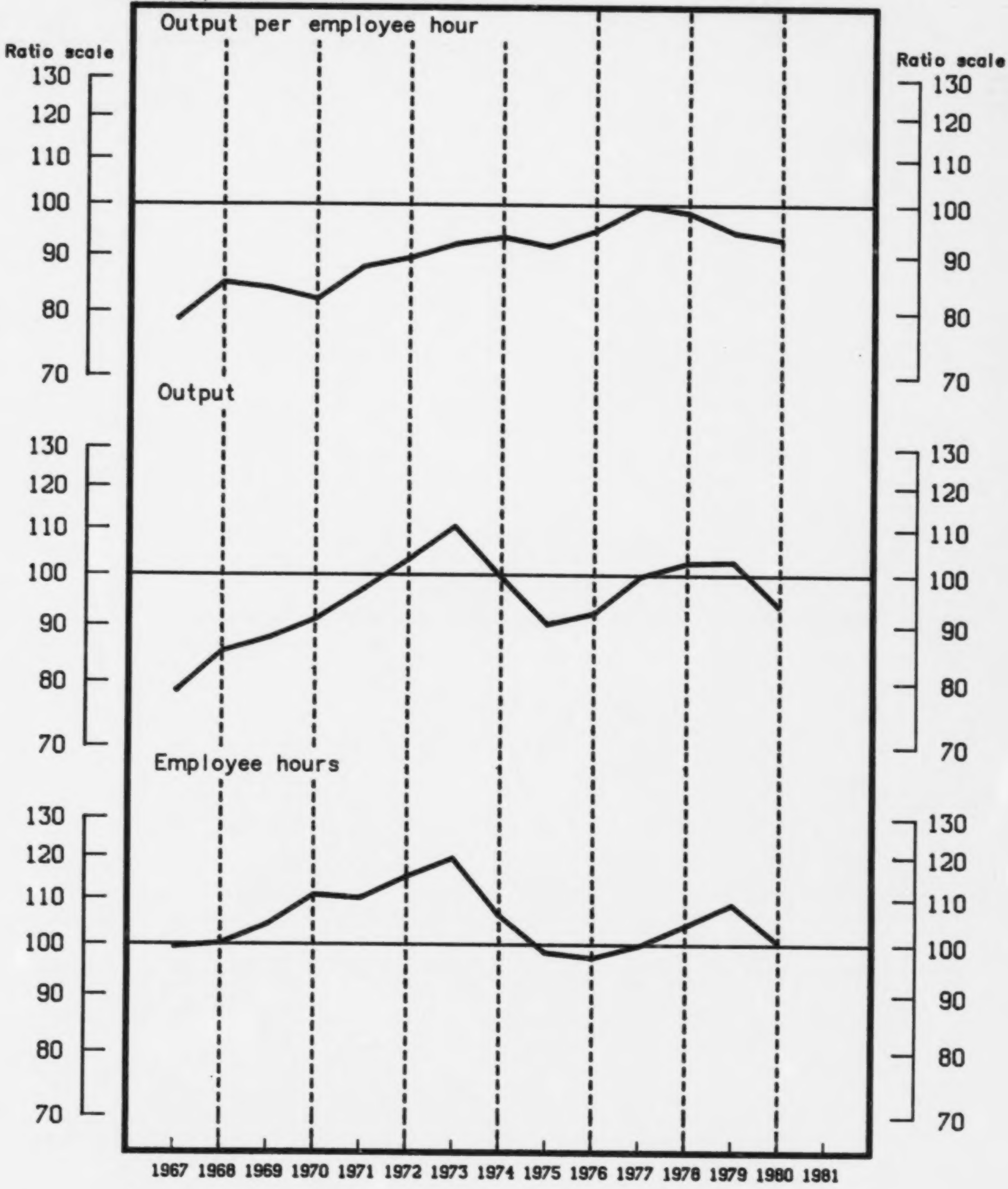
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	55.2	102.7	105.7	91.7	109.7	114.8	92.0
1959	65.4	109.8	120.4	70.8	120.3	134.1	72.0
1960	65.1	109.8	120.4	70.8	123.0	137.5	72.0
1961	64.7	101.8	110.1	70.8	114.2	126.2	72.0
1962	64.4	95.1	102.8	66.7	106.1	117.1	68.0
1963	65.7	97.8	102.8	79.2	100.9	106.9	80.0
1964	73.3	101.8	106.8	83.3	102.7	108.0	84.0
1965	79.6	111.2	117.6	87.6	111.5	118.3	88.0
1966	87.5	115.7	121.6	93.7	118.5	125.0	96.0
1967	79.4	106.7	109.1	97.9	111.5	114.8	100.0
1968	81.5	105.9	105.1	108.3	108.8	109.1	108.0
1969	93.2	112.1	111.3	114.6	115.1	116.0	112.0
1970	89.1	108.5	102.8	129.2	108.8	104.6	124.0
1971	82.1	101.0	93.1	129.2	102.7	96.7	124.0
1972	84.6	97.8	94.3	110.5	99.1	96.7	108.0
1973	92.0	98.3	101.1	87.6	98.2	101.1	88.0
1974	115.2	107.2	110.1	95.9	108.8	111.4	100.0
1975	100.2	104.9	102.8	112.5	110.6	109.1	116.0
1976	93.3	96.1	93.1	106.3	100.9	98.9	108.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.8	106.7	108.5	100.0	104.4	105.7	100.0
1979	107.7	98.7	99.4	95.8	107.1	110.2	96.0
1980	93.5	86.6	81.8	104.2	91.2	87.5	104.0
1981 [1]	93.6	75.9	75.0	79.2	80.5	80.7	80.0
Average annual percent change:							
1958-81	2.5	-.6	-1.1	1.4	-.8	-1.3	1.3
1976-81	-.6	-4.7	-4.9	-3.9	-3.9	-3.9	-4.0

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 64. Concrete products (SIC 3271, 3272): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 125. Concrete products (SIC 3271, 3272): Indexes of output per employee hour and output per employee, 1954-80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	53.1	51.2	61.4	54.9	53.0	61.5
1955	56.3	53.9	67.2	57.8	55.2	66.9
1956	61.4	58.9	72.8	64.2	61.7	72.7
1957	60.1	58.3	68.3	62.1	60.3	68.4
1958	59.1	58.0	64.5	60.0	58.5	64.5
1959	60.2	57.1	74.6	63.1	59.9	74.4
1960	57.6	54.5	72.4	62.2	59.4	72.1
1961	58.7	55.8	72.1	63.5	61.2	71.5
1962	59.8	56.7	74.6	65.2	62.6	74.2
1963	64.8	63.1	73.1	68.4	67.2	72.7
1964	68.7	67.2	75.6	72.9	72.0	75.5
1965	71.3	69.6	80.0	74.4	72.8	79.4
1966	75.7	75.2	80.1	77.5	76.9	79.2
1967	78.9	75.6	91.0	81.1	78.4	90.0
1968	85.2	81.9	96.9	88.3	85.6	97.3
1969	84.2	81.5	93.9	88.8	86.3	96.9
1970	82.3	79.6	92.1	86.9	83.7	97.5
1971	88.0	86.1	94.4	90.2	87.7	98.6
1972	89.7	87.9	95.4	91.9	90.1	97.7
1973	92.4	90.4	98.6	95.0	93.9	98.8
1974	93.7	91.1	102.9	94.9	93.1	100.2
1975	91.9	92.4	90.0	91.5	92.4	88.7
1976	95.0	94.6	96.0	96.5	96.6	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	96.6	98.5	99.0	98.4	98.2	98.9
1979	94.6	95.0	93.3	94.9	95.5	93.6
1980 [2]	93.2	96.5	84.6	93.3	96.5	85.2
Average annual percent change:						
1947-80	2.9	3.2	1.5	2.7	3.0	1.5
1976-80	-.9	-.1	-3.2	-1.2	-.5	-3.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 126. Concrete products (SIC 3271, 3272): Indexes of output, employee hours, and employees, 1954-80

(1977=100)

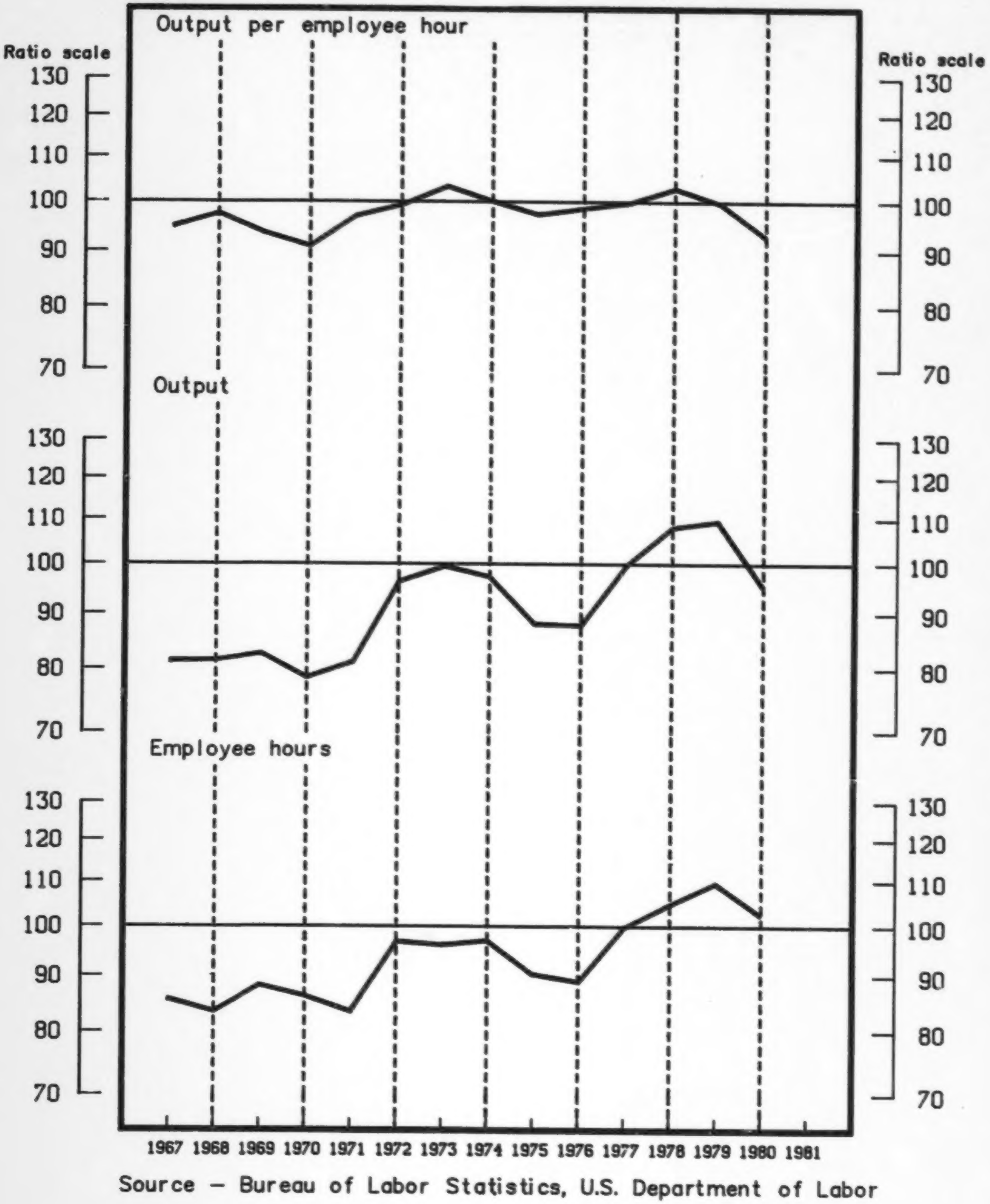
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	41.3	77.8	80.6	67.3	75.2	77.9	67.1
1955	47.7	84.8	88.5	71.0	82.5	86.4	71.3
1956	55.9	91.1	94.9	76.8	87.1	90.6	76.9
1957	54.0	89.9	92.6	79.1	86.9	89.6	79.0
1958	51.5	87.2	88.8	79.9	85.9	88.0	79.9
1959	55.5	92.2	97.2	74.4	88.0	92.6	74.6
1960	56.1	97.4	103.0	77.5	90.2	94.5	77.8
1961	56.2	95.7	100.7	78.0	88.5	91.9	78.6
1962	58.1	97.1	102.5	77.9	89.1	92.8	78.3
1963	64.8	100.0	102.7	88.6	94.7	96.5	89.1
1964	70.6	102.8	105.0	93.4	96.9	98.0	93.5
1965	76.9	107.8	110.5	96.1	103.3	105.7	96.8
1966	81.9	108.2	108.9	102.2	105.7	106.5	103.4
1967	78.6	99.6	104.0	86.4	96.9	100.2	87.3
1968	85.5	100.4	104.4	88.2	96.8	99.9	87.9
1969	87.9	104.4	107.9	93.6	99.0	101.9	90.7
1970	91.4	111.0	114.8	99.2	105.2	109.2	93.7
1971	97.1	110.3	112.8	102.9	107.6	110.7	98.5
1972	103.5	115.4	117.8	108.5	112.6	114.9	105.9
1973	110.8	119.9	122.5	112.4	116.6	118.0	112.2
1974	99.8	106.5	109.6	97.0	105.2	107.2	99.6
1975	90.5	98.5	97.9	100.5	98.9	97.9	102.0
1976	92.6	97.5	97.9	96.5	96.0	95.9	96.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	104.3	104.4	103.8	104.5	104.7	103.9
1979	103.1	109.0	108.5	110.5	108.6	108.0	110.2
1980 [1]	93.9	100.7	97.3	111.0	100.6	97.3	110.2
Average annual percent change:							
1947-80	4.1	1.2	.9	2.6	1.4	1.1	2.6
1976-80	.6	1.5	.7	3.9	1.8	1.1	3.7

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 65. Ready-mix concrete (SIC 3273): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 127. Ready-mixed concrete (SIC 3273): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958–80

(1977 = 100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	77.4	76.5	54.1	69.9	70.7
1959	79.2	78.5	60.4	76.3	76.9
1960	77.9	79.8	58.8	75.5	73.7
1961	76.7	79.8	59.3	77.3	74.3
1962	78.7	80.6	61.1	77.6	75.8
1963	85.8	88.5	72.0	83.9	81.4
1964	86.2	88.8	73.0	84.7	82.2
1965	90.3	91.1	79.0	87.5	86.7
1966	90.7	91.3	78.3	86.3	85.8
1967	95.0	96.2	81.5	85.8	84.7
1968	97.7	98.3	81.7	83.6	83.1
1969	93.7	97.2	82.8	88.4	85.2
1970	91.1	90.6	78.7	86.4	86.9
1971	97.2	93.1	81.3	83.6	87.3
1972	99.5	99.0	96.5	97.0	97.5
1973	103.5	101.4	99.7	96.3	98.3
1974	100.3	98.3	97.5	97.2	99.2
1975	97.5	93.1	88.2	90.5	94.7
1976	98.8	94.5	88.0	89.1	93.1
1977	100.0	100.0	100.0	100.0	100.0
1978	103.1	102.9	108.3	105.0	105.2
1979	99.9	98.4	109.7	109.8	111.5
1980 [1]	93.1	91.3	95.6	102.7	104.7
Average annual percent change:					
1958-80	1.3	1.1	2.9	1.6	1.8
1976-80	-1.2	-.8	2.6	3.8	3.5

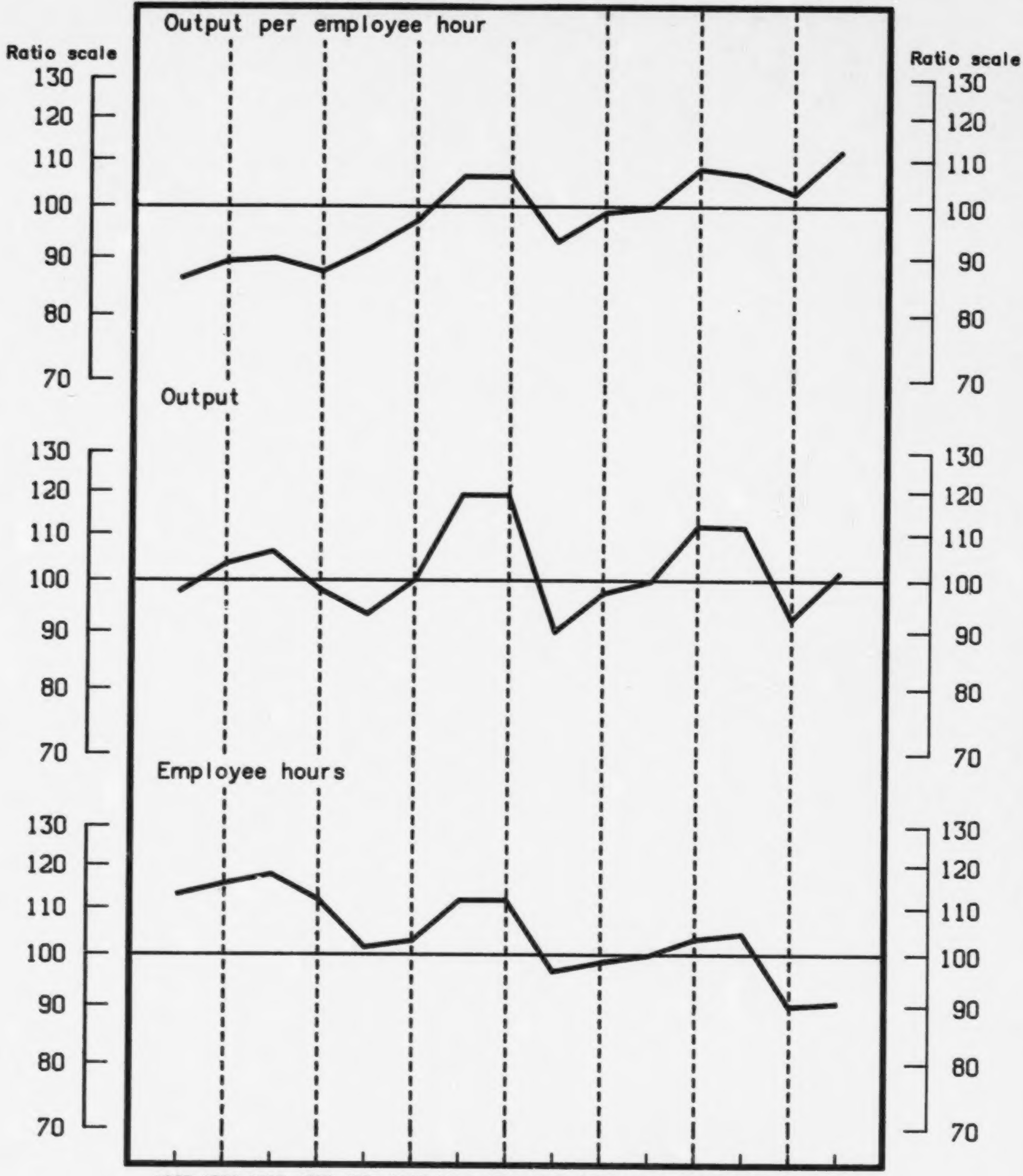
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of the Census.

BEST DOCUMENT AVAILABLE

Chart 66. Steel (SIC 331): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 128. Steel (SIC 331): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	66.8	62.0	91.9	62.8	57.9	89.5
1955	75.9	69.0	117.7	75.7	69.0	114.5
1956	74.8	68.8	106.6	74.4	68.8	103.7
1957	72.9	68.2	95.4	70.5	65.9	92.9
1958	67.4	65.6	74.6	63.1	60.8	72.6
1959	75.7	73.4	85.0	74.8	72.6	82.7
1960	71.2	68.8	80.8	67.5	64.8	78.4
1961	73.4	71.4	81.4	70.7	68.6	78.8
1962	77.1	74.9	86.2	74.6	72.5	83.3
1963	80.6	77.0	96.1	79.7	76.4	93.0
1964	84.1	79.3	106.5	84.8	80.7	103.0
1965	87.5	82.6	110.7	88.3	84.0	107.1
1966	89.2	84.8	109.5	89.6	85.7	105.8
1967	86.4	83.6	98.0	85.5	83.1	94.8
1968	89.5	87.6	96.8	90.4	88.6	97.3
1969	90.0	87.7	98.9	91.5	89.6	99.3
1970	87.6	86.0	93.4	86.9	85.1	94.0
1971	91.9	91.0	95.4	90.4	89.0	95.4
1972	97.3	95.5	104.4	97.9	95.9	105.4
1973	106.6	103.3	119.9	109.5	106.6	121.2
1974	106.5	103.7	117.7	108.5	106.0	118.8
1975	93.3	93.5	92.4	91.3	91.3	91.5
1976	99.0	98.5	100.4	98.5	98.1	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.3	106.9	113.7	110.9	109.7	114.8
1979	106.9	105.1	113.2	108.6	107.0	114.0
1980	102.9	104.3	98.5	100.4	101.3	97.1
1981 [2]	112.2	113.1	109.3	111.7	112.6	108.5
Average annual percent change:						
1947-81	1.7	2.1	.1	1.9	2.2	.2
1976-81	2.0	2.3	1.1	1.8	2.0	.9

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Iron and Steel Institute; the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Table 129. Steel (SIC 331): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

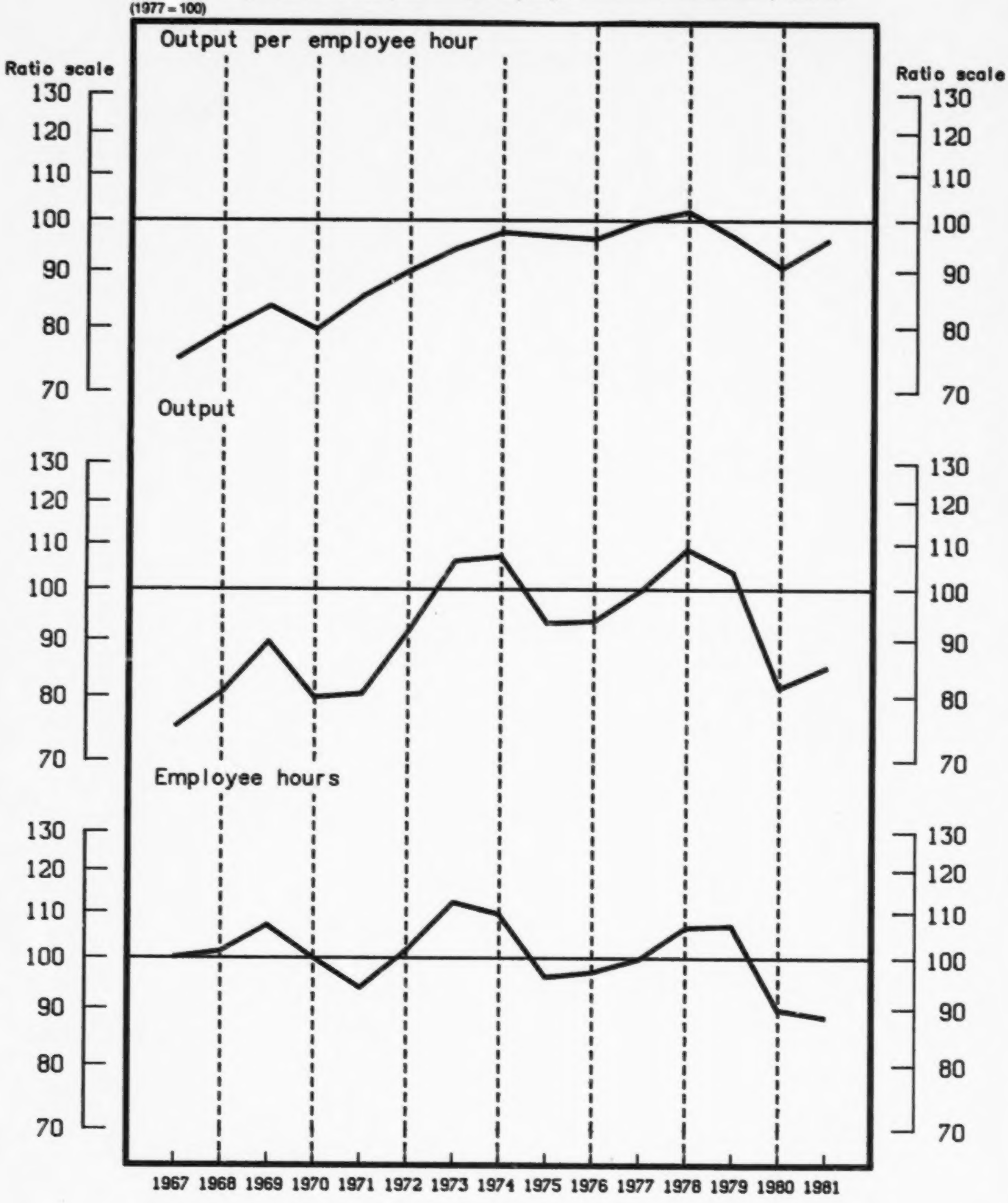
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	73.1	109.4	117.9	79.5	116.4	126.3	81.7
1955	96.4	127.0	139.8	81.9	127.4	139.8	84.2
1956	94.8	126.8	137.7	86.9	127.4	137.7	91.4
1957	91.5	125.5	134.1	95.9	129.8	138.8	98.5
1958	68.4	101.5	104.2	91.7	108.4	112.5	94.2
1959	79.1	104.5	107.8	93.1	105.8	109.0	95.7
1960	79.3	111.4	115.2	96.2	117.4	122.3	101.1
1961	75.9	103.4	108.3	93.3	107.3	110.6	96.3
1962	79.8	103.5	106.6	92.6	106.9	110.1	95.8
1963	84.7	105.1	110.0	88.1	106.3	110.8	91.1
1964	96.2	114.4	121.3	90.3	113.4	119.2	93.4
1965	104.6	119.6	126.7	94.5	118.4	124.5	97.7
1966	105.3	118.0	124.2	96.2	117.5	122.9	99.5
1967	97.9	113.3	117.1	99.9	114.5	117.8	103.3
1968	103.7	115.9	118.4	107.1	114.7	117.1	106.6
1969	108.3	118.1	121.2	107.5	116.2	118.7	107.0
1970	98.3	112.2	114.3	105.2	113.1	115.5	104.6
1971	93.5	101.7	102.8	98.0	103.4	105.1	98.0
1972	100.3	103.1	105.0	96.1	102.5	104.6	95.2
1973	119.4	112.0	115.6	99.6	109.0	112.0	98.5
1974	119.3	112.0	115.0	101.4	110.0	112.6	100.4
1975	90.3	96.8	96.6	97.7	98.9	98.9	98.7
1976	97.6	98.6	99.1	97.2	99.1	99.5	97.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	112.0	103.4	104.8	98.5	101.0	102.1	97.6
1979	111.7	104.5	106.3	98.7	102.9	104.4	98.0
1980	92.7	90.1	88.9	94.1	92.3	91.5	95.5
1981 [1]	101.8	90.7	90.0	93.1	91.1	90.4	93.8
Average annual percent change:							
1947-81	1.2	-.6	-.9	1.0	-.7	-1.0	.9
1976-81	-.1	-2.0	-2.3	-1.1	-1.8	-2.0	-1.0

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Iron and Steel Institute; the Energy Information Administration, U.S. Department of Energy; and the Bureau of the Census. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 67. Gray iron foundries (SIC 3321): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 130. Gray iron foundries (SIC 3321): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	58.7	56.6	75.9	57.2	54.5	77.6
1955	63.3	60.4	88.5	65.1	62.0	90.2
1956	62.9	60.6	80.3	63.0	60.3	81.9
1957	61.1	59.7	71.2	58.7	56.6	72.5
1958	63.3	63.3	83.5	58.9	57.9	64
1959	65.3	63.9	76.0	64.8	62.9	77.3
1960	65.0	64.4	68.4	62.2	61.0	69.8
1961	66.7	66.4	68.9	63.1	61.9	70.1
1962	69.2	68.1	77.1	66.5	66.8	78.7
1963	70.7	69.1	82.8	72.2	70.2	84.6
1964	75.1	72.6	94.2	79.6	77.1	96.7
1965	78.8	76.2	98.8	84.1	81.5	101.0
1966	79.3	76.7	98.3	83.3	80.8	100.1
1967	75.1	73.3	87.2	75.8	73.8	88.6
1968	79.6	77.9	91.5	82.6	80.4	96.2
1969	83.8	81.6	99.1	86.7	84.3	101.9
1970	79.8	78.8	86.6	78.7	77.3	87.[illegible]
1971	85.6	84.7	91.2	84.4	83.4	90.1
1972	90.2	88.3	103.4	92.2	90.9	99.6
1973	94.5	92.1	110.8	96.9	94.9	107.8
1974	97.7	95.7	111.2	98.2	96.4	108.3
1975	97.0	96.9	97.3	94.0	93.6	95.5
1976	96.4	96.4	96.4	95.7	95.6	95.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.1	102.0	102.4	101.4	101.2	102.4
1979	96.8	98.1	90.2	94.7	95.6	90.7
1980	90.8	94.8	73.0	86.5	89.5	73.7
1981 [2]	96.2	100.1	78.5	93.3	96.7	78.7
Average annual percent change:						
1954-81	2.1	2.3	1.0	2.1	2.3	.9
1976-81	-1.0	(3)	-5.8	-1.8	-.9	-5.8

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 131. Gray iron foundries (SIC 3321): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

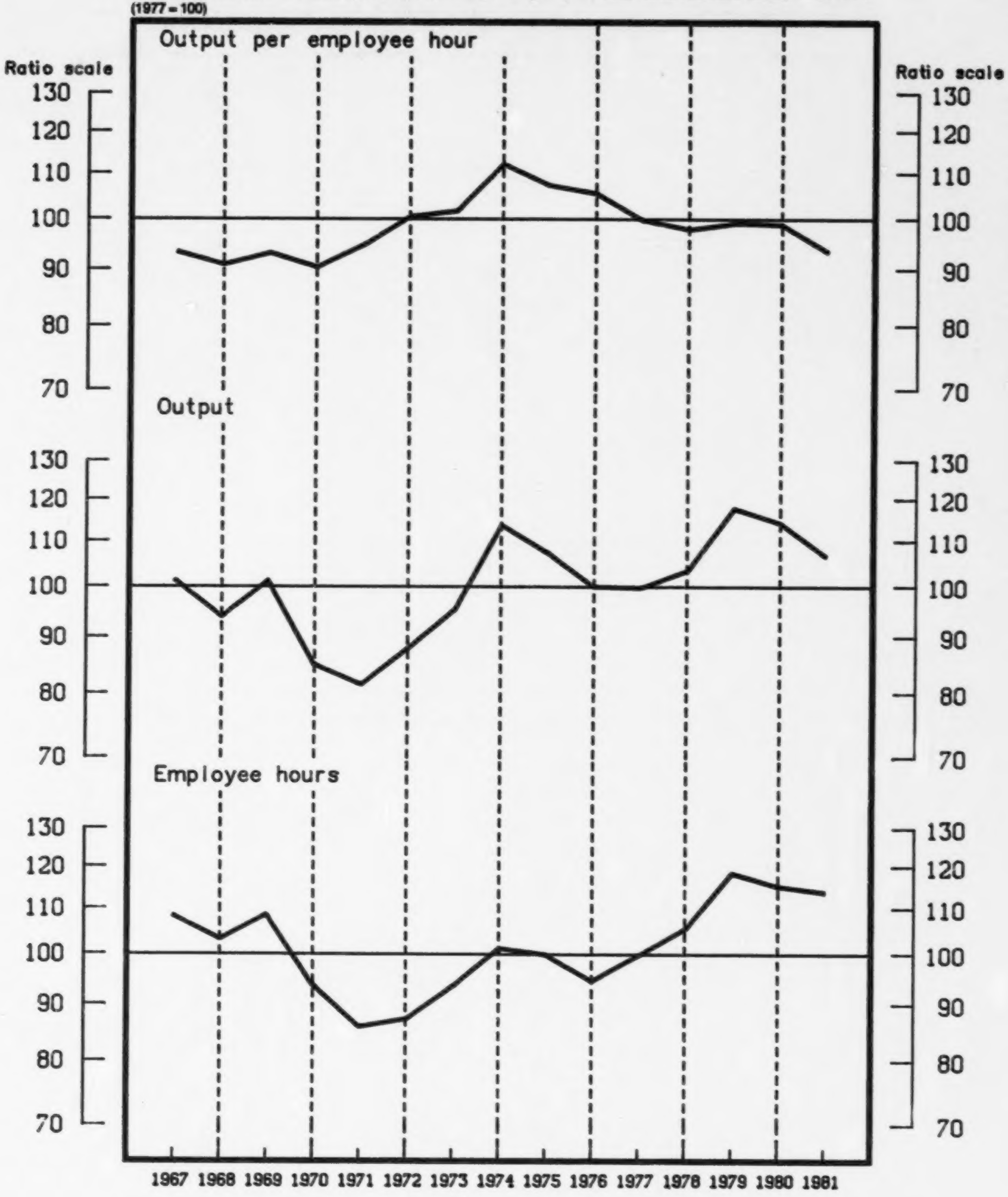
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	55.2	94.0	97.5	72.7	96.5	101.3	71.1
1955	67.9	107.3	112.5	76.7	104.3	109.6	75.3
1956	64.8	103.1	107.0	80.7	102.8	107.4	79.1
1957	57.5	94.1	96.3	80.8	98.0	101.6	79.3
1958	47.8	75.5	75.5	75.3	81.1	82.5	73.9
1959	58.8	90.0	92.0	77.4	90.7	93.5	76.1
1960	54.5	83.9	84.6	79.7	87.6	89.4	76.1
1961	51.7	77.5	77.9	75.0	81.9	83.5	73.7
1962	58.8	85.0	86.4	78.3	85.9	88.0	74.7
1963	62.7	88.7	90.8	75.7	86.8	89.3	74.1
1964	72.5	96.5	99.9	77.0	91.1	94.0	75.0
1965	81.7	103.7	107.2	82.7	97.1	100.3	80.9
1966	84.5	106.6	110.1	86.0	101.4	104.6	84.4
1967	75.3	100.3	102.7	86.4	99.4	102.1	85.0
1968	80.9	101.6	103.9	88.4	98.0	100.6	84.1
1969	89.9	107.3	110.2	90.7	103.7	106.6	88.2
1970	80.0	100.2	101.5	92.4	101.6	103.5	91.6
1971	80.6	94.2	95.2	88.4	95.5	96.6	89.5
1972	91.9	101.9	104.1	88.9	99.7	101.1	92.3
1973	106.3	112.5	115.4	95.9	109.7	112.0	98.6
1974	107.3	109.8	112.1	96.5	109.3	111.3	99.1
1975	93.4	96.3	96.4	96.0	99.4	99.8	97.8
1976	93.8	97.3	97.3	97.3	98.0	98.1	97.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.0	106.8	106.9	106.4	107.5	107.7	106.4
1979	103.8	107.2	105.8	115.1	109.6	108.6	114.5
1980	81.7	90.0	83.2	111.9	94.4	91.3	110.9
1981 [1]	85.2	88.6	85.1	108.6	91.3	88.1	108.2
Average annual percent change:							
1954-81	2.5	.4	.2	1.5	.4	.2	1.7
1976-81	-3.2	-2.2	-3.2	2.8	-1.4	-2.3	2.6

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 68. Steel foundries (SIC 3324, 3325): Output per hour and related data, 1967-81
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

Table 132. Steel foundries (SIC 3324, 3325): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour[1]			Output per employee[1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	73.2	71.7	79.9	70.3	67.8	81.8
1955	80.3	76.6	102.0	82.2	78.1	104.0
1956	84.9	79.6	120.4	88.8	82.9	123.0
1957	83.1	79.2	106.0	83.8	79.4	108.2
1958	75.8	75.5	75.6	71.9	70.4	78.2
1959	81.5	78.2	100.9	81.0	76.9	102.6
1960	80.7	78.7	92.0	79.6	76.7	93.8
1961	81.8	80.1	89.8	80.2	77.7	91.5
1962	85.8	82.8	102.3	86.4	82.8	104.5
1963	91.2	87.7	111.2	92.3	88.1	113.6
1964	91.7	86.6	122.5	95.9	90.5	125.9
1965	94.1	88.8	126.4	99.4	93.9	129.1
1966	95.6	90.4	127.9	102.0	96.8	130.3
1967	93.5	90.2	111.8	95.8	92.2	113.5
1968	91.1	89.5	98.6	92.4	90.0	103.9
1969	93.3	90.5	107.7	95.8	92.4	110.9
1970	90.6	88.4	101.7	91.0	88.6	102.4
1971	94.9	94.5	98.6	94.1	93.7	95.7
1972	100.7	98.7	110.3	99.3	97.8	106.0
1973	101.9	99.1	116.9	102.8	100.2	113.8
1974	112.4	108.4	134.1	112.1	108.2	131.2
1975	107.5	105.0	120.1	107.9	105.6	118.6
1976	105.7	105.3	107.3	104.4	103.7	106.8
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.1	97.1	102.8	97.6	98.4	102.8
1979	99.4	96.8	112.4	100.3	97.7	112.8
1980	99.1	99.0	99.5	97.1	96.3	100.6
1981[2]	93.6	94.6	89.6	95.7	97.2	90.1
Average annual percent change:						
1954-81	1.1	1.2	.4	1.1	1.3	.2
1976-81	-1.8	-1.6	-2.3	-1.4	-1.2	-2.1

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 133. Steel foundries (SIC 3324, 3325): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

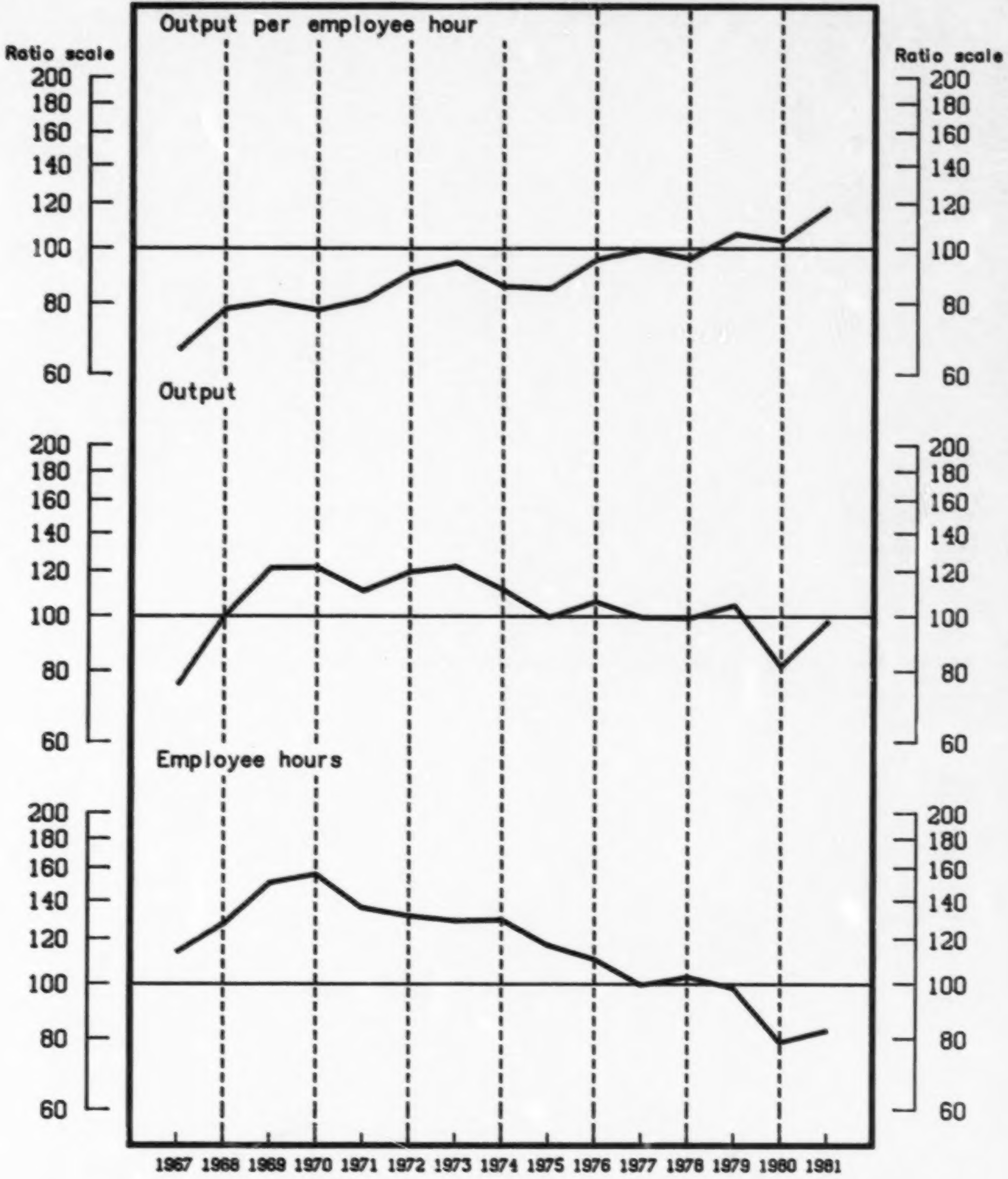
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	59.2	80.9	82.6	74.1	84.2	87.3	72.4
1955	75.8	94.4	99.0	74.3	92.2	97.1	72.9
1956	95.6	112.6	120.1	79.4	107.7	115.3	77.7
1957	86.6	104.2	109.3	81.7	103.3	109.1	80.0
1958	54.1	71.4	71.7	70.6	75.2	76.8	69.2
1959	67.0	82.2	85.7	66.4	82.7	87.1	65.3
1960	61.9	76.7	78.7	67.3	77.8	80.7	66.0
1961	57.4	70.2	71.7	63.9	71.6	73.9	62.7
1962	66.8	77.9	80.7	65.3	77.3	80.7	63.9
1963	80.3	88.0	91.6	72.2	87.0	91.1	70.7
1964	91.0	99.2	105.1	74.3	94.9	100.6	72.3
1965	99.7	106.0	112.3	78.9	100.3	106.2	77.2
1966	110.6	115.7	122.4	86.5	108.4	114.3	84.9
1967	101.5	108.5	112.5	90.8	105.9	110.1	89.2
1968	94.2	103.4	105.2	95.5	101.9	104.7	90.7
1969	101.5	108.8	112.1	94.2	106.0	109.8	91.5
1970	85.1	93.9	96.3	83.7	93.5	96.1	83.1
1971	81.7	86.1	86.5	84.6	86.8	87.2	85.4
1972	86.1	87.5	89.3	79.9	88.7	90.1	83.1
1973	95.5	93.7	96.4	81.7	92.9	95.3	83.9
1974	114.0	101.4	105.2	85.0	101.7	105.4	86.9
1975	107.6	100.1	102.5	89.6	99.7	101.9	90.7
1976	100.2	94.8	95.2	93.4	96.0	96.6	93.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.6	105.6	106.7	100.8	106.1	107.5	100.8
1979	118.0	118.7	121.9	105.0	117.6	120.8	104.6
1980	114.5	115.5	115.6	115.1	117.9	118.9	113.8
1981[1]	106.8	114.1	112.9	119.2	111.6	109.9	118.5
Average annual percent change:							
1954-81	2.0	.9	.8	1.7	.9	.7	1.8
1976-81	2.5	4.3	4.1	4.9	3.9	3.7	4.7

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 69. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Output per hour and related data, 1967-81
(1977=100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 134. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	58.2	54.0	87.4	56.9	54.4	89.5
1955	62.7	59.3	81.5	65.3	61.8	83.4
1956	63.6	59.7	87.4	67.0	63.0	88.8
1957	63.9	60.7	81.4	66.0	62.5	83.5
1958	62.6	61.2	69.3	63.7	62.1	71.0
1959	58.9	58.1	63.0	59.0	57.8	64.5
1960	65.7	63.2	78.6	66.0	65.3	80.6
1961	68.7	66.3	81.2	71.7	69.2	83.2
1962	73.0	70.2	87.7	75.9	73.0	90.2
1963	74.7	71.3	92.9	77.0	73.3	95.5
1964	77.6	73.8	99.0	79.2	74.9	102.3
1965	80.0	75.8	104.6	83.2	78.4	107.8
1966	79.0	74.8	103.6	82.9	78.5	106.1
1967	68.6	67.0	84.8	68.6	69.2	68.3
1968	70.5	75.6	93.1	80.9	77.4	98.0
1969	80.7	76.3	106.5	83.3	78.7	108.7
1970	78.1	74.6	95.5	80.8	77.3	93.4
1971	81.5	79.9	88.8	83.0	81.5	89.5
1972	90.9	86.7	114.0	92.3	88.4	112.0
1973	94.8	91.5	110.9	95.0	92.0	109.3
1974	86.0	84.8	91.3	87.4	86.8	90.0
1975	85.3	86.4	80.7	85.6	87.2	80.5
1976	96.0	96.2	95.1	96.6	97.0	94.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.5	95.8	99.7	97.7	97.3	99.7
1979	106.5	105.1	112.6	106.7	105.1	113.4
1980	103.7	106.1	94.8	101.2	102.6	96.3
1981 [2]	118.3	118.4	113.4	116.1	116.3	115.1
Average annual percent change:						
1947-81	2.3	2.5	1.0	2.1	2.3	.9
1976-81	3.6	3.9	2.4	3.0	3.1	2.8

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 135. Primary copper, lead, and zinc (SIC 3331, 3332, 3333): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

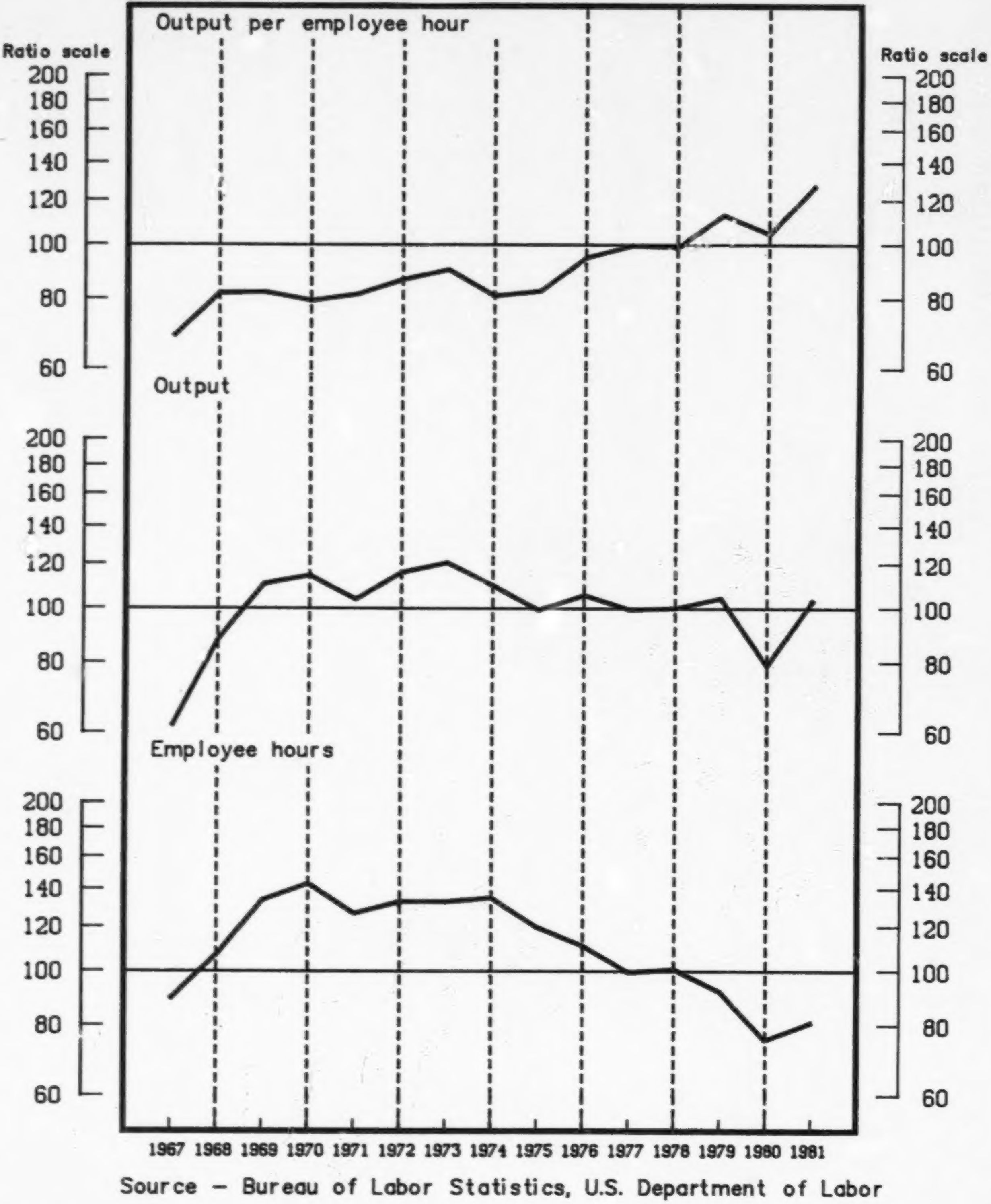
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	82.3	146.5	152.4	122.1	144.6	151.2	118.5
1955	93.7	149.5	158.0	114.9	143.6	151.6	112.3
1956	101.7	158.9	170.3	116.3	151.7	161.5	113.3
1957	99.2	155.3	163.4	121.9	150.3	158.6	118.8
1958	85.8	137.0	140.2	123.8	134.7	138.1	120.8
1959	71.2	120.8	122.6	113.1	120.6	123.2	110.4
1960	92.4	140.6	146.1	117.5	135.9	141.4	114.6
1961	93.8	136.5	141.5	115.5	130.8	135.5	112.8
1962	98.5	135.0	140.3	112.3	129.7	134.9	109.2
1963	97.5	130.5	136.8	104.9	126.7	133.0	102.1
1964	102.4	131.9	136.7	103.4	129.3	136.8	100.1
1965	108.1	135.1	142.7	103.3	130.0	137.8	100.3
1966	111.2	140.7	148.7	107.3	134.1	141.6	104.6
1967	76.1	114.3	113.6	117.4	110.9	109.9	114.7
1968	100.5	128.1	133.0	108.0	124.3	129.8	102.5
1969	122.1	151.3	160.1	114.7	146.5	155.2	112.3
1970	122.4	156.7	164.0	126.8	151.4	158.4	124.4
1971	111.3	136.6	139.3	125.4	134.1	136.6	124.4
1972	120.2	132.2	138.6	105.4	130.2	135.9	107.3
1973	122.8	129.6	134.2	110.7	129.2	133.5	112.3
1974	112.0	130.2	132.0	122.7	128.2	129.1	124.4
1975	100.1	117.4	115.8	124.1	116.9	114.8	124.4
1976	106.6	111.0	110.8	112.1	110.4	109.9	112.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	103.3	104.1	100.0	102.0	102.5	100.0
1979	105.1	98.7	100.0	93.3	98.5	100.0	92.7
1980	82.2	79.3	77.5	86.7	81.2	80.1	85.4
1981 [1]	98.3	83.1	82.3	86.7	84.7	84.5	85.4
Average annual percent change:							
1947-81	.8	–1.5	–1.7	–.3	–1.3	–1.5	–.1
1976-81	–2.7	–6.1	–6.3	–5.0	–5.5	–5.6	–5.3

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 70. Primary copper (SIC 3331): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 136. Primary copper (SIC 3331): Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	58.1	55.6	72.4	60.1	57.6	74.2
1955	68.6	64.9	92.6	72.9	69.3	94.3
1956	69.9	65.2	103.7	75.6	70.8	106.1
1957	69.2	64.9	99.3	73.0	68.5	101.5
1958	65.1	62.6	79.5	67.1	64.4	81.1
1959	61.4	60.1	68.0	59.2	57.2	69.4
1960	68.4	64.6	92.5	70.1	66.1	94.3
1961	69.7	67.4	82.7	72.3	69.9	84.2
1962	75.7	73.0	91.2	79.0	76.2	93.4
1963	75.4	71.7	98.3	78.8	75.0	100.7
1964	80.2	76.4	103.0	81.9	77.7	105.8
1965	81.9	76.9	116.3	86.2	80.9	119.0
1966	79.9	75.9	104.7	84.9	80.9	106.7
1967	69.0	70.4	63.3	69.9	71.3	64.5
1968	82.3	79.9	94.7	84.0	80.8	100.6
1969	82.6	78.4	106.7	85.1	80.6	111.1
1970	79.8	76.6	97.9	83.6	80.7	99.1
1971	81.9	80.7	87.2	82.8	81.9	86.9
1972	87.0	83.4	107.0	88.5	85.6	103.8
1973	90.6	87.5	107.1	93.3	91.0	104.5
1974	81.3	81.5	80.5	82.5	83.5	78.8
1975	83.0	85.3	74.0	84.4	87.5	73.4
1976	95.2	96.6	88.7	97.2	99.5	88.4
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.4	98.2	105.1	101.4	100.6	104.8
1979	113.3	111.3	123.6	115.4	113.3	124.8
1980	105.3	109.6	89.6	101.5	104.5	90.7
1981 [2]	127.4	128.5	122.2	122.3	122.0	123.3
Average annual percent change:						
1947-81	1.9	2.2	.4	1.6	1.9	.3
1976-81	5.1	5.4	4.2	3.9	3.7	4.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 137. Primary copper (SIC 3331): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

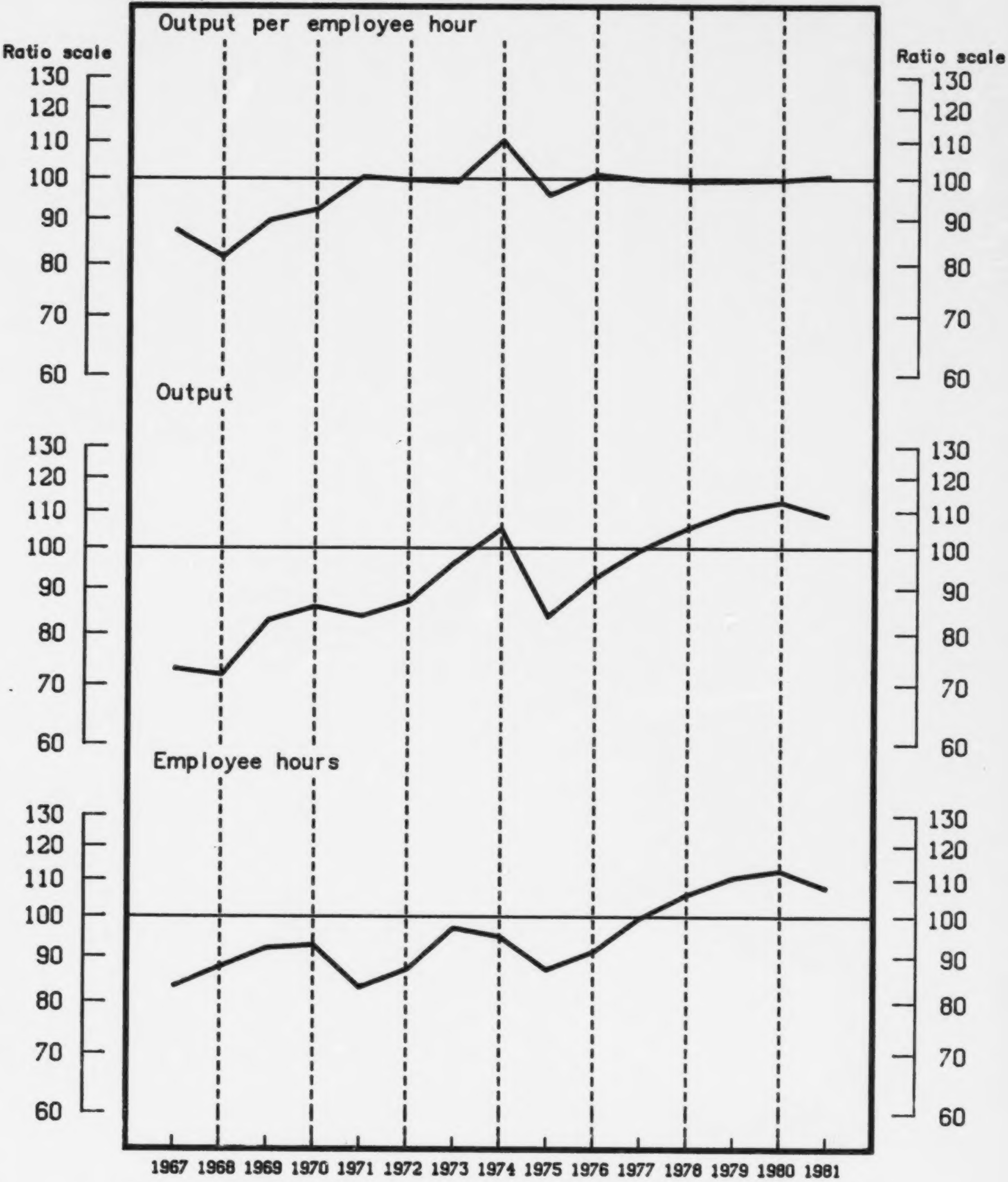
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	67.4	116.1	121.2	93.1	112.1	117.1	90.8
1955	79.2	115.4	122.1	85.5	108.6	114.3	84.0
1956	87.2	124.7	133.7	84.1	115.3	123.1	82.2
1957	83.9	121.2	129.3	84.5	114.9	122.5	82.7
1958	75.4	115.8	120.4	94.9	112.4	117.0	93.0
1959	59.4	96.8	98.9	87.3	100.4	103.8	85.6
1960	86.3	126.1	133.5	93.3	123.1	130.6	91.5
1961	85.0	121.9	126.1	102.8	117.6	121.6	100.9
1962	92.0	121.5	126.1	100.9	116.5	120.7	98.5
1963	90.0	119.3	125.5	91.6	114.2	120.0	89.4
1964	93.1	116.1	121.9	90.4	113.7	119.8	88.0
1965	100.0	122.1	130.1	86.0	116.0	123.6	84.0
1966	102.4	128.2	135.0	97.8	120.6	126.5	96.0
1967	61.9	89.7	87.9	97.8	88.6	86.8	96.0
1968	88.5	107.5	110.7	93.5	105.4	109.5	88.0
1969	111.1	134.5	141.7	102.2	130.6	137.8	100.0
1970	114.9	144.0	150.0	117.4	137.5	142.4	115.9
1971	104.3	127.4	129.2	119.6	126.0	127.3	120.0
1972	116.3	133.7	139.4	108.7	131.4	135.9	112.0
1973	121.1	133.7	138.4	113.1	129.8	133.1	115.9
1974	110.3	135.7	135.4	137.0	133.7	132.1	139.9
1975	99.8	120.3	117.0	134.8	118.3	114.1	136.0
1976	106.1	111.5	109.8	119.6	109.2	106.6	120.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.6	101.2	102.4	95.7	99.2	100.0	96.0
1979	104.8	92.5	94.2	84.8	90.8	92.5	84.0
1980	79.8	75.8	72.8	89.1	78.6	76.4	88.0
1981 [1]	103.6	81.3	80.6	84.8	84.7	84.9	84.0
Average annual percent change:							
1947-81	1.5	-.5	-.7	1.0	-.1	-.4	1.2
1976-81	-2.1	-6.9	-7.1	-6.1	-5.8	-5.6	-6.4

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 71. Primary aluminum (SIC 3334): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 138. Primary aluminum (SIC 3334): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	45.3	43.8	53.0	47.2	45.7	54.1
1955	50.3	48.9	57.1	52.0	50.7	58.1
1956	51.6	50.9	54.3	52.7	52.1	55.3
1957	51.9	51.8	52.0	53.1	53.3	52.9
1958	57.8	59.2	52.1	59.5	61.4	53.0
1959	68.6	68.2	70.6	71.5	71.4	71.9
1960	71.7	71.9	70.5	73.9	74.5	71.7
1961	74.7	75.9	70.0	76.7	78.5	71.1
1962	78.4	78.5	77.2	80.1	80.5	78.9
1963	81.0	80.9	81.1	82.6	82.6	82.6
1964	83.4	81.8	90.0	81.3	78.8	92.2
1965	85.4	84.1	90.7	86.0	84.4	92.4
1966	88.3	87.3	93.0	90.1	89.2	94.5
1967	87.6	86.7	91.0	88.0	86.9	92.3
1968	81.9	82.0	81.2	82.5	81.8	85.3
1969	90.0	89.0	94.5	91.5	90.2	96.4
1970	92.5	92.2	94.0	92.3	91.7	94.2
1971	100.7	101.7	96.7	99.3	100.2	95.6
1972	99.9	101.3	94.4	97.5	99.5	90.5
1973	99.4	97.8	106.6	99.2	98.0	103.9
1974	110.8	109.1	118.8	109.0	107.4	115.4
1975	96.2	100.1	82.6	95.1	99.4	81.3
1976	101.4	102.1	98.4	101.1	101.9	98.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.6	98.6	103.8	101.9	101.3	104.0
1979	99.7	99.2	102.1	100.5	100.2	101.9
1980	100.0	102.3	91.6	98.5	100.3	92.3
1981 [2]	100.9	105.1	86.4	99.0	102.7	86.6
Average annual percent change:						
1947-81	3.4	3.5	2.6	3.1	3.3	2.5
1976-81	-.1	.6	-2.6	-.5	.1	-2.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior; and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 139. Primary aluminum (SIC 3334): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	34.0	75.1	77.7	64.1	72.0	74.4	62.9
1955	36.4	72.4	74.5	63.7	70.0	71.8	62.7
1956	38.9	75.4	76.4	71.6	73.8	74.7	70.3
1957	38.1	73.4	73.5	73.3	71.7	71.5	72.0
1958	36.1	62.5	61.0	69.3	60.7	58.8	68.1
1959	45.0	65.6	66.0	63.7	62.9	63.0	62.6
1960	46.1	64.3	64.1	65.4	62.4	61.9	64.3
1961	43.5	58.2	57.3	62.1	56.7	55.4	61.2
1962	48.2	61.5	61.4	62.4	60.2	59.9	61.1
1963	52.4	64.7	64.8	64.6	63.4	63.4	63.4
1964	57.7	69.2	70.5	64.1	71.0	73.2	62.6
1965	62.1	72.7	73.8	68.5	72.2	73.6	67.2
1966	66.6	75.4	76.3	71.6	73.9	74.7	70.5
1967	73.2	83.6	84.4	80.4	83.2	84.2	79.3
1968	72.1	88.0	87.9	88.8	87.4	88.1	84.5
1969	83.1	92.3	93.4	87.9	90.8	92.1	86.2
1970	86.1	93.1	93.4	91.6	93.3	93.9	91.4
1971	84.0	83.4	82.6	86.9	84.6	83.8	87.9
1972	87.3	87.4	86.2	92.5	89.5	87.7	96.5
1973	96.7	97.3	98.9	90.7	97.5	98.7	93.1
1974	105.5	95.2	96.7	88.8	96.8	98.2	91.4
1975	84.1	87.4	84.0	101.8	88.4	84.6	103.4
1976	92.9	91.6	91.0	94.4	91.9	91.2	94.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	106.2	107.3	101.9	103.8	104.4	101.7
1979	110.7	111.0	111.6	108.4	110.1	110.5	108.6
1980	113.0	113.0	110.5	123.4	114.7	112.7	122.4
1981 [1]	109.0	108.0	103.7	126.2	110.1	106.1	125.9
Average annual percent change:							
1947-81	6.4	2.8	2.6	3.6	3.1	2.9	3.7
1976-81	3.5	3.6	2.9	6.3	4.0	3.4	6.2

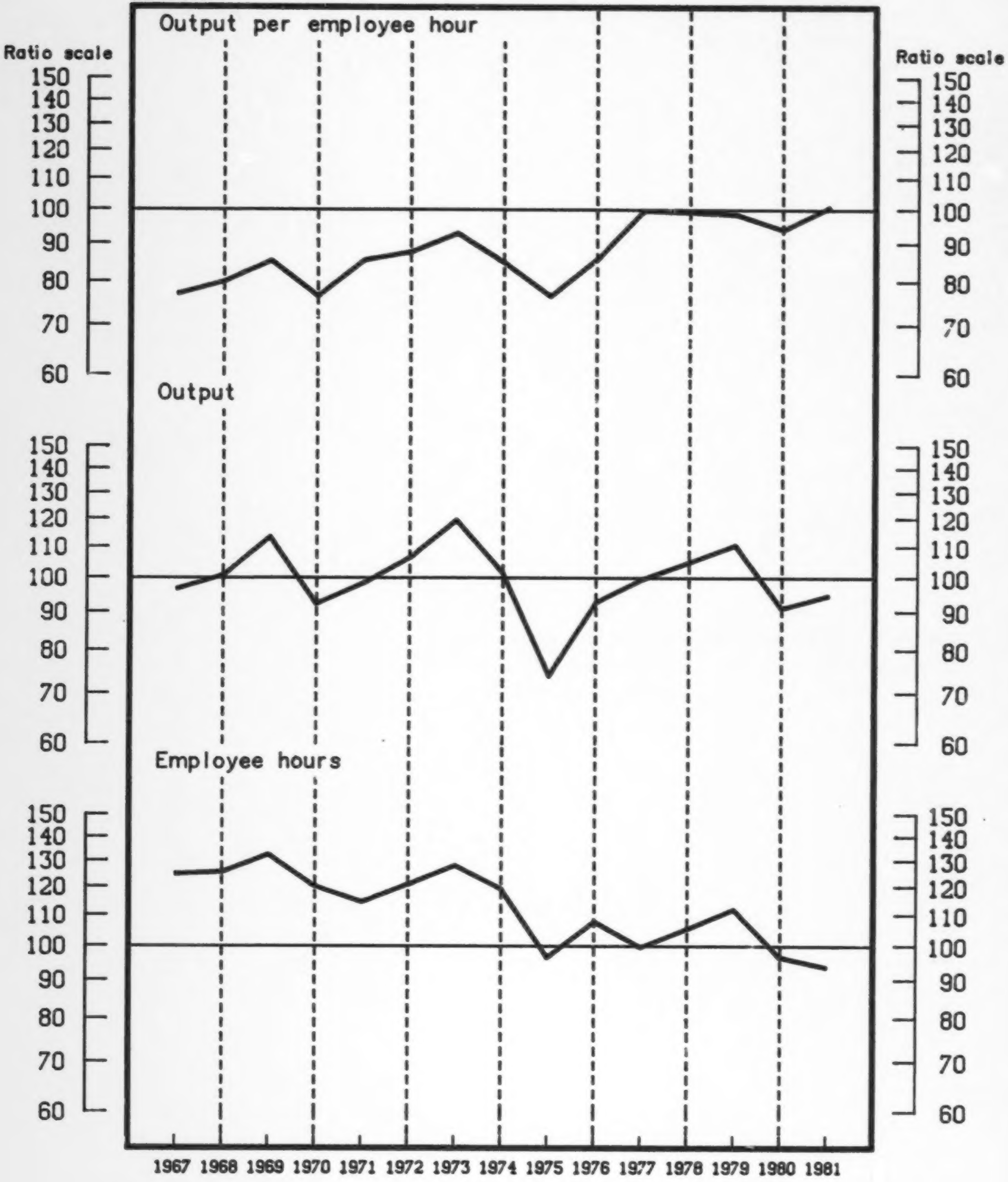
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of Mines, U.S. Department of the Interior, and the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 72. Copper rolling and drawing (SIC 3351): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 140. Copper rolling and drawing (SIC 3351): Indexes of output per employee hour and output per employee,

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	54.9	54.7	56.0	53.2	52.2	57.0
1959	60.4	58.5	68.9	61.0	58.8	70.0
1960	58.2	57.0	63.7	56.2	54.2	64.8
1961	63.1	62.9	64.1	62.3	61.5	65.1
1962	67.6	66.9	70.3	67.7	66.6	71.7
1963	74.0	71.3	86.5	74.7	71.3	88.3
1964	81.5	78.6	95.3	83.0	79.4	97.9
1965	86.1	82.6	103.0	87.9	83.9	105.0
1966	91.0	86.6	113.8	94.5	89.7	115.3
1967	77.3	75.9	83.5	75.3	72.9	85.0
1968	80.3	79.5	83.4	79.4	77.3	87.7
1969	85.6	83.9	92.6	86.5	84.2	95.2
1970	76.8	76.9	76.3	74.3	73.8	76.5
1971	85.8	84.9	89.2	83.7	82.7	87.6
1972	88.0	85.3	100.0	88.5	86.5	96.0
1973	93.2	90.0	108.3	94.1	91.2	105.2
1974	85.2	84.2	89.7	84.5	83.7	87.3
1975	76.8	80.4	65.5	72.5	75.2	64.6
1976	86.1	85.6	87.8	85.5	85.1	87.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.5	99.1	101.4	99.0	98.4	101.1
1979	98.8	98.0	102.4	97.0	95.6	102.3
1980	94.3	96.3	87.4	92.3	93.7	87.7
1981 [2]	101.1	102.7	95.0	100.8	102.6	95.0
Average annual percent change:						
1958-81	2.2	2.3	1.5	2.1	2.3	1.4
1976-81	1.8	2.3	(3)	1.6	2.1	.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 141. Copper rolling and drawing (SIC 3351): Indexes of output, employee hours, and employees, 1958-81

(1977=100)

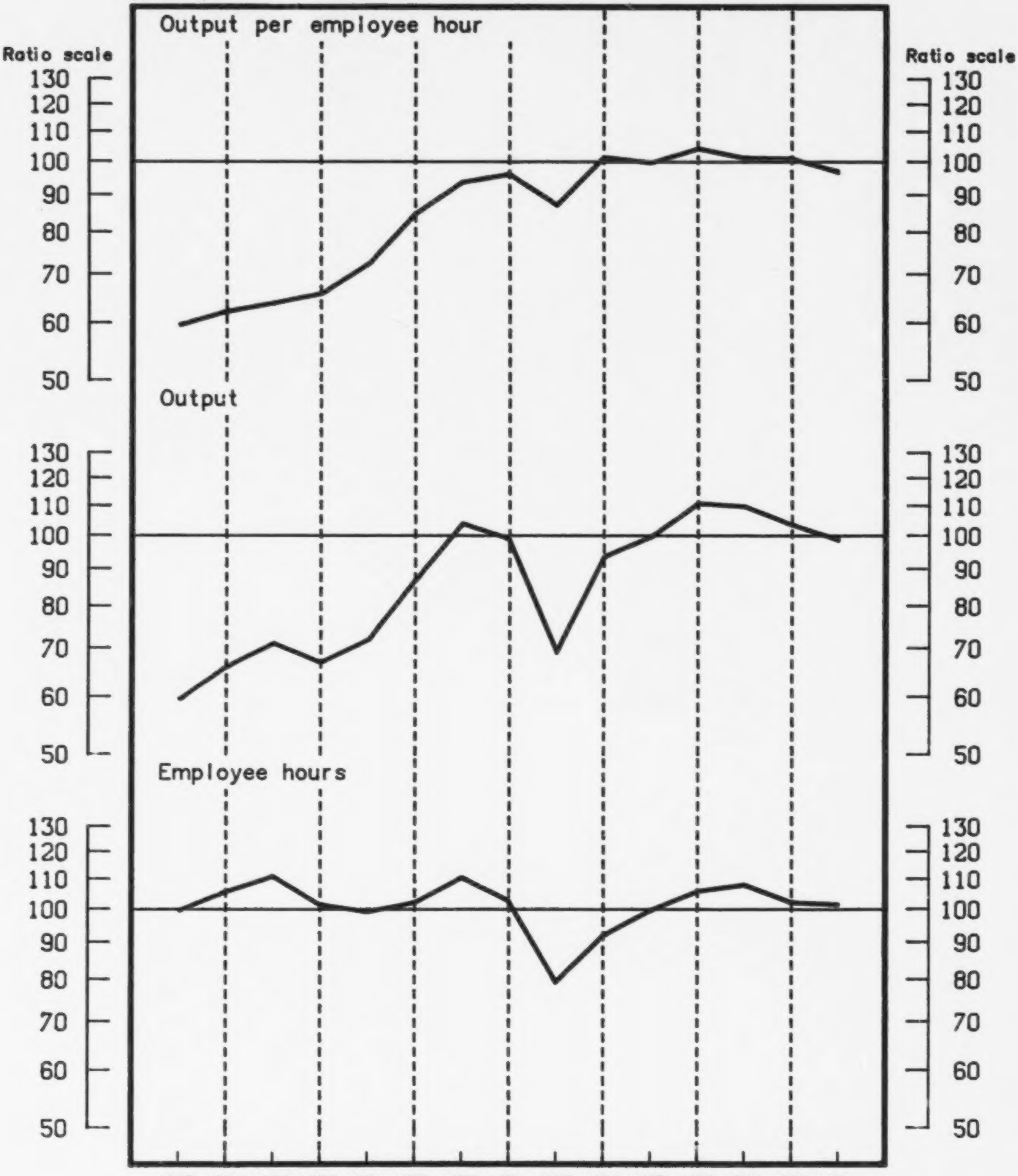
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	68.5	124.7	125.3	122.3	128.8	131.2	120.2
1959	84.0	139.1	143.6	121.9	137.7	142.8	120.0
1960	71.1	122.1	124.8	111.7	126.4	131.2	109.8
1961	78.4	124.2	124.6	122.4	125.9	127.4	120.5
1962	89.1	131.8	133.1	126.7	131.7	133.8	124.2
1963	92.8	125.4	130.1	107.3	124.3	130.1	105.1
1964	104.7	128.4	133.2	109.9	126.1	131.8	107.0
1965	110.9	128.8	134.2	107.7	126.1	132.2	105.6
1966	123.4	135.6	142.5	108.4	130.6	137.5	107.0
1967	96.9	125.3	127.7	116.0	128.7	133.0	114.0
1968	101.2	126.1	127.3	121.3	127.4	130.9	115.4
1969	113.8	133.0	135.6	122.9	131.5	135.1	119.6
1970	92.6	120.6	120.4	121.3	124.6	125.5	121.1
1971	98.7	115.0	116.2	110.7	117.9	119.4	112.7
1972	106.8	121.4	125.2	106.8	120.7	123.5	111.2
1973	119.9	128.6	133.2	110.7	127.4	131.4	114.0
1974	102.0	119.7	121.2	113.7	120.7	121.8	116.9
1975	74.5	97.0	92.7	113.7	102.8	99.1	115.4
1976	93.1	108.1	108.7	106.0	108.9	109.4	107.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.3	105.8	106.3	103.8	106.4	107.0	104.2
1979	111.0	112.3	113.3	108.4	114.4	116.1	108.5
1980	91.4	96.9	94.9	104.6	99.0	97.5	104.2
1981 [1]	95.0	94.0	92.5	100.0	94.2	92.6	100.0
Average annual percent change:							
1958-81	.9	-1.3	-1.4	-.6	-1.2	-1.4	-.5
1976-81	-.3	-2.1	-2.5	-.3	-1.9	-2.3	-.5

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously publisheo.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 73. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 142. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output per employee hour and output per employee, 1958–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	38.1	38.9	34.8	38.6	39.5	35.5
1959	41.1	40.6	42.9	42.5	42.2	43.7
1960	39.0	39.7	36.1	40.1	41.0	36.7
1961	42.8	43.3	40.8	44.2	45.0	41.4
1962	46.5	47.0	44.7	47.8	48.3	45.7
1963	51.5	51.8	49.9	52.9	53.5	51.1
1964	54.8	55.2	53.4	56.7	57.1	54.8
1965	60.0	60.0	60.5	63.1	63.5	61.7
1966	60.4	59.6	64.1	63.4	63.0	65.2
1967	59.8	60.0	58.7	60.8	61.0	59.7
1968	62.4	63.5	58.1	62.8	63.3	61.0
1969	64.1	64.8	60.9	65.5	66.3	62.5
1970	66.0	68.6	56.5	64.6	67.0	56.9
1971	72.5	74.9	63.7	70.0	72.1	62.8
1972	85.1	84.7	86.4	85.8	86.5	83.3
1973	94.0	92.8	99.5	95.5	95.2	96.7
1974	96.4	96.1	97.3	94.9	94.9	94.8
1975	87.5	92.5	70.9	82.6	86.8	69.8
1976	101.7	102.7	97.6	100.3	101.2	96.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	104.9	103.3	103.2	103.3	103.1
1979	101.5	102.4	97.6	101.4	102.4	97.8
1980	101.3	105.0	88.1	99.3	102.6	88.6
1981 [2]	97.2	99.3	89.2	95.9	97.8	89.3
Average annual percent change:						
1958-81	4.9	4.9	4.7	4.6	4.6	4.5
1976-81	-.6	-.1	-2.5	-.7	-.3	-2.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 143. Aluminum rolling and drawing (SIC 3353, 3354, 3355): Indexes of output, employee hours, and employees, 1958–81

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	28.9	75.8	74.2	83.0	74.9	73.2	81.5
1959	37.6	91.5	92.5	87.6	88.4	89.1	86.1
1960	33.7	86.5	84.8	93.4	84.1	82.1	91.8
1961	36.8	85.9	85.0	90.2	83.2	81.8	88.3
1962	41.5	89.2	88.3	92.9	86.9	85.9	90.9
1963	45.9	89.1	88.6	91.9	86.7	85.8	89.9
1964	50.8	92.7	92.1	95.1	89.6	88.9	92.7
1965	58.0	96.6	96.7	95.9	91.9	91.4	94.0
1966	64.2	106.3	107.8	100.2	101.2	101.9	98.5
1967	59.7	99.9	99.5	101.7	98.2	97.8	100.0
1968	66.2	106.1	104.3	114.0	105.4	104.6	108.6
1969	71.3	111.3	110.0	117.0	108.9	107.6	114.1
1970	67.1	101.7	97.8	118.7	103.8	100.2	118.0
1971	72.1	99.5	96.3	113.1	103.0	100.0	114.8
1972	87.2	102.5	102.9	100.9	101.6	100.8	104.7
1973	104.2	110.9	112.3	104.7	109.1	109.4	107.8
1974	99.3	103.0	103.3	102.1	104.6	104.6	104.7
1975	69.8	79.8	75.5	98.4	84.5	80.4	100.0
1976	93.9	92.3	91.4	96.2	93.6	92.8	96.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.1	106.2	105.9	107.6	107.7	107.6	107.8
1979	110.0	108.4	107.4	112.7	108.5	107.4	112.5
1980	103.8	102.5	98.9	117.8	104.5	101.2	117.2
1981 [1]	99.0	101.8	99.7	111.0	103.2	101.2	110.9
Average annual percent change:							
1958-81	5.7	.8	.8	1.0	1.1	1.0	1.1
1976-81	1.1	1.7	1.2	3.6	1.8	1.3	3.5

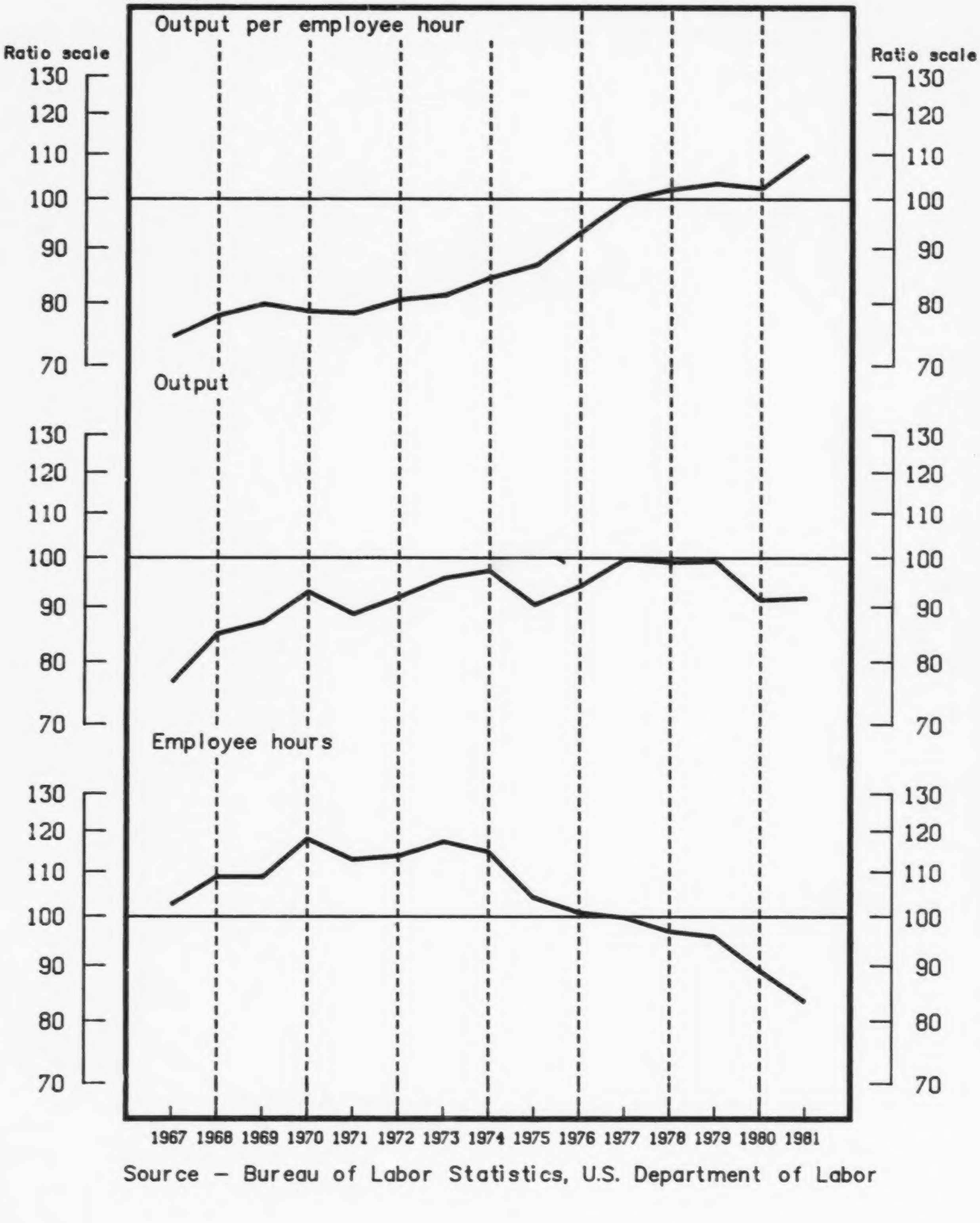
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 74. Metal cans (SIC 3411): Output per hour and related data, 1967-81
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

Table 144. Metal cans (SIC 3411): Indexes of output per employee hour and output per employee, 1954–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	54.7	53.5	63.5	53.2	51.4	66.3
1955	58.0	56.6	67.7	56.5	54.6	69.2
1956	60.5	58.8	72.4	59.6	57.4	74.3
1957	59.4	58.1	68.3	57.9	56.0	70.0
1958	62.3	61.2	69.5	59.9	58.1	71.3
1959	64.5	63.0	75.6	64.1	62.0	77.3
1960	66.1	64.6	76.2	65.0	63.0	77.8
1961	69.7	68.1	81.1	68.9	66.8	82.7
1962	67.4	65.6	80.9	68.4	66.2	82.7
1963	67.0	65.4	78.9	67.2	65.1	80.6
1964	68.5	66.9	79.1	69.7	67.9	81.1
1965	70.3	69.5	75.6	73.4	72.7	77.2
1966	72.2	70.1	87.6	72.5	70.0	89.1
1967	74.7	72.6	90.8	76.3	73.8	92.3
1968	78.1	75.9	94.9	80.0	77.6	95.1
1969	80.0	78.2	93.4	80.2	77.7	96.3
1970	78.8	77.5	87.6	79.5	77.3	93.2
1971	78.5	77.7	83.8	77.4	75.9	86.1
1972	80.8	79.3	91.3	80.5	78.9	90.3
1973	81.6	79.8	95.0	82.3	80.1	96.0
1974	84.7	84.2	87.6	84.4	83.4	90.0
1975	87.0	87.9	81.5	86.5	87.2	83.0
1976	93.4	93.9	90.3	92.5	92.5	91.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.3	102.6	100.4	100.8	100.9	100.3
1979	103.6	104.1	101.2	103.3	103.6	101.6
1980	102.6	104.0	94.8	102.2	103.6	95.6
1981 [2]	110.0	110.8	105.0	108.7	109.4	105.1
Average annual percent change:						
1947-81	2.4	2.5	1.8	2.5	2.6	1.7
1976-81	2.6	2.8	1.7	2.6	2.8	1.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 145. Metal cans (SIC 3411): Indexes of output, employee hours, and employees, 1954–81

(1977=100)

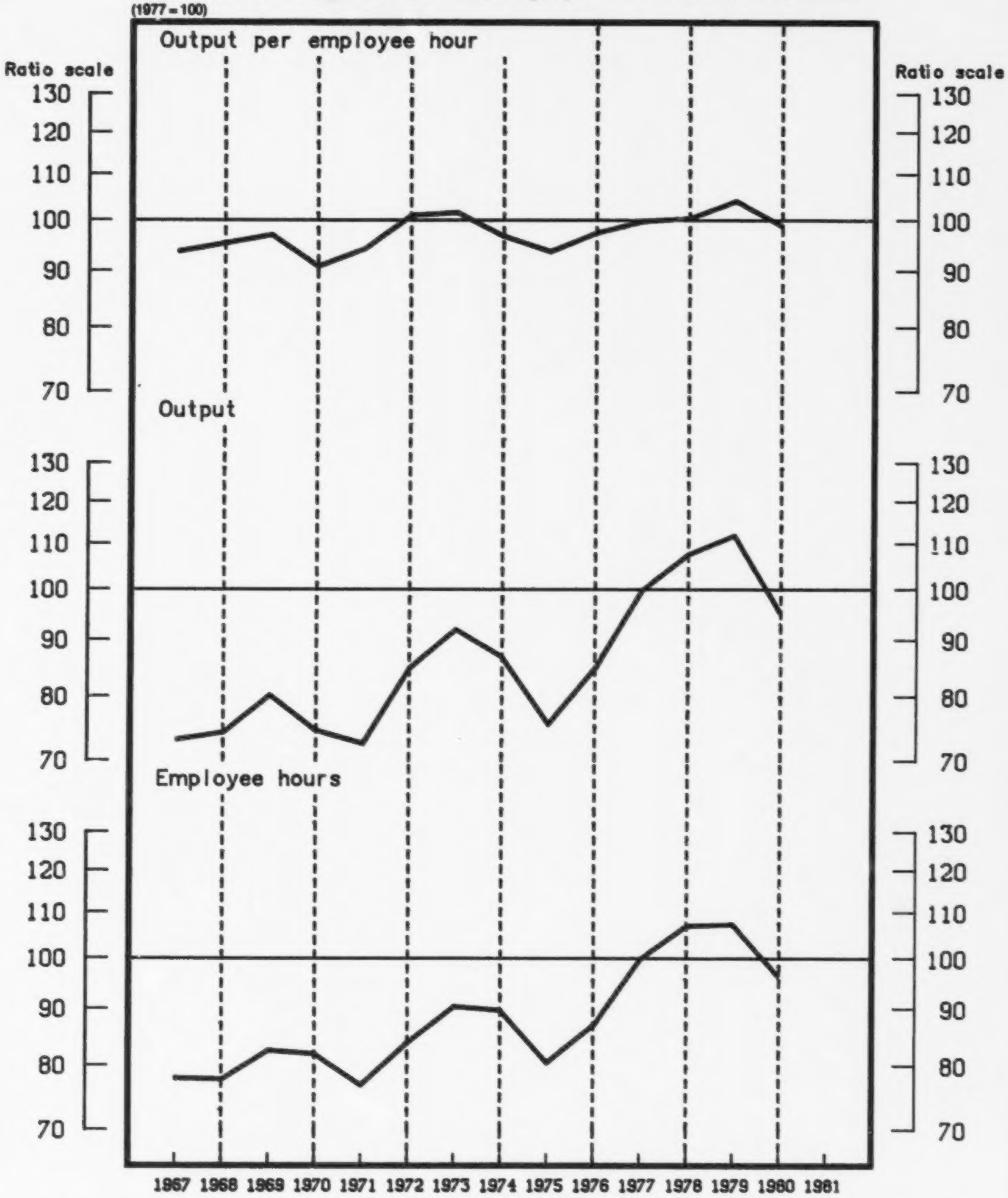
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	49.1	89.7	91.7	77.3	92.3	95.6	75.2
1955	51.5	86.8	91.0	76.1	91.2	94.4	74.4
1956	54.9	90.8	93.3	75.8	92.1	95.6	73.9
1957	53.0	89.2	91.2	77.6	91.6	94.6	75.7
1958	54.3	87.1	88.7	78.1	90.7	93.4	76.2
1959	57.6	89.3	91.5	76.2	89.9	92.9	74.5
1960	58.2	88.1	90.1	76.4	89.5	92.4	74.8
1961	61.5	88.2	90.3	75.8	89.2	92.1	74.4
1962	60.7	90.0	92.6	75.0	88.7	91.7	73.4
1963	59.8	89.2	91.5	75.8	89.0	91.9	74.2
1964	64.2	93.7	95.9	81.2	92.1	94.6	79.2
1965	67.3	95.7	96.9	89.0	91.7	92.6	87.2
1966	71.2	98.6	101.5	81.3	98.2	101.7	79.9
1967	76.9	102.9	105.9	84.7	100.8	104.2	83.3
1968	85.2	109.1	112.2	89.6	106.5	109.8	89.6
1969	87.3	109.1	111.7	93.5	108.9	112.3	90.7
1970	93.2	118.3	120.3	106.4	117.2	120.5	100.0
1971	88.9	113.2	114.4	106.1	114.8	117.1	103.2
1972	92.2	114.1	116.3	101.0	114.5	116.9	102.1
1973	96.0	117.6	120.3	101.1	116.7	119.9	100.0
1974	97.5	115.1	115.8	111.3	115.5	116.9	108.3
1975	90.7	104.3	103.2	111.3	104.8	104.0	109.3
1976	94.4	101.1	100.5	104.5	102.1	102.0	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.3	97.1	96.8	98.9	98.5	98.4	99.0
1979	99.5	96.0	95.6	98.3	96.3	96.0	97.9
1980	91.6	89.3	88.1	96.6	89.6	88.4	95.8
1981 [1]	92.0	83.6	83.0	87.6	84.6	84.1	87.5
Average annual percent change:							
1947-81	3.1	.7	.6	1.3	.7	.5	1.4
1976-81	-1.1	-3.6	-3.8	-2.8	-3.6	-3.8	-2.7

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 75. Hand and edge tools (SIC 3423): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 146. Hand and edge tools (SIC 3423): Indexes of output per employee hour and output per employee, 1958–80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	74.0	75.2	69.7	73.2	73.7	71.2
1959	79.0	78.8	79.9	81.0	80.9	81.7
1960	77.0	77.5	74.5	78.7	79.4	76.3
1961	79.8	81.3	74.6	81.8	83.5	76.0
1962	81.5	82.2	79.1	84.8	86.0	80.9
1963	84.0	85.1	80.1	84.9	85.7	82.1
1964	86.1	87.0	82.9	88.4	89.4	85.1
1965	91.2	91.1	91.3	93.5	93.5	93.4
1966	88.8	87.6	93.8	93.4	93.0	95.5
1967	93.9	92.2	101.0	95.9	94.2	102.8
1968	95.5	94.2	100.9	97.1	96.0	101.5
1969	97.2	96.3	101.0	99.1	97.9	104.1
1970	91.0	90.8	92.0	93.1	91.9	98.0
1971	94.4	93.6	98.0	96.0	94.6	100.6
1972	101.2	99.9	106.2	101.8	100.9	104.8
1973	101.8	101.4	103.4	102.7	102.2	104.7
1974	96.9	96.2	99.4	97.4	96.2	102.4
1975	93.9	94.5	91.5	93.7	93.8	93.3
1976	97.6	98.4	94.8	97.0	97.3	96.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.6	98.8	107.8	100.9	99.2	107.8
1979	104.3	105.2	100.7	103.1	103.7	101.1
1980 [2]	99.0	102.8	86.2	95.1	97.6	86.9
Average annual percent change:						
1958-80	1.3	1.3	1.4	1.2	1.1	1.3
1976-80	.7	1.4	-1.8	-.1	.4	-2.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census.

Table 147. Hand and edge tools (SIC 3423): Indexes of output, employee hours, and employees, 1958–80

(1977=100)

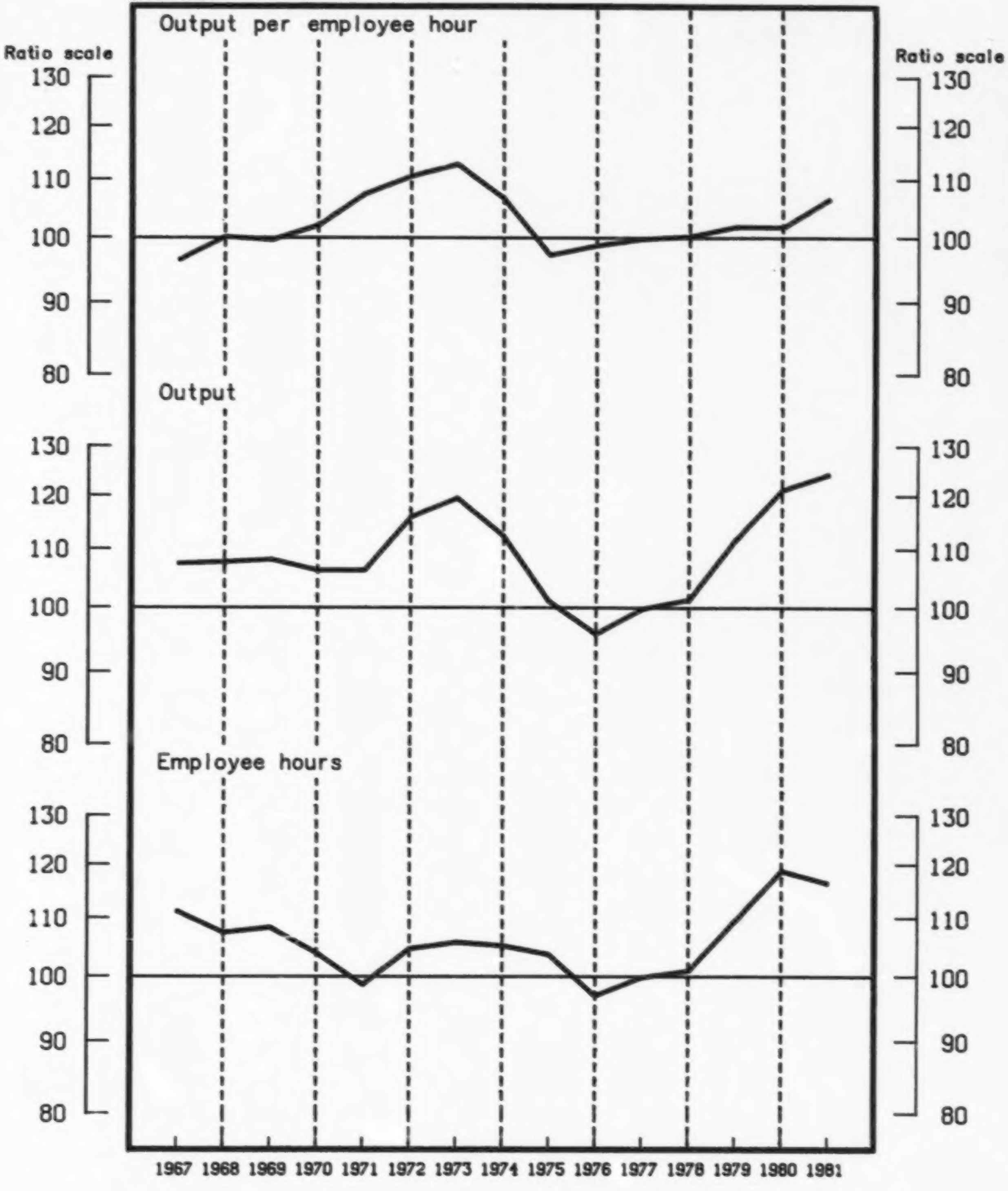
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	47.2	63.8	62.8	67.7	64.5	64.0	66.3
1959	55.0	69.6	69.8	68.8	67.9	68.0	67.3
1960	52.1	67.7	67.2	69.9	66.2	65.6	68.3
1961	55.7	69.8	68.5	74.7	68.1	66.7	73.3
1962	60.8	74.6	74.0	76.9	71.7	70.7	75.2
1963	56.9	67.7	66.9	71.0	67.0	66.4	69.3
1964	61.5	71.4	70.7	74.2	69.6	68.8	72.3
1965	70.2	77.0	77.1	76.9	75.1	75.1	75.2
1966	75.6	85.1	86.3	80.6	80.9	81.3	79.2
1967	73.3	78.1	79.5	72.6	76.4	77.8	71.3
1968	74.4	77.9	79.0	73.7	76.6	77.5	73.3
1969	80.4	82.7	83.5	79.6	81.1	82.1	77.2
1970	74.7	82.1	82.3	81.2	80.2	81.3	76.2
1971	72.7	77.0	77.7	74.2	75.7	76.7	72.3
1972	85.1	84.1	85.2	80.1	83.6	84.3	81.2
1973	92.2	90.6	90.9	89.2	89.8	90.2	88.1
1974	87.1	89.9	90.5	87.6	89.4	90.5	85.1
1975	75.8	80.7	80.2	82.8	80.9	80.8	81.2
1976	85.1	87.2	86.5	89.8	87.7	87.5	88.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.8	107.2	109.1	100.0	106.8	108.7	100.0
1979	112.1	107.5	106.6	111.3	108.7	108.1	110.9
1980 [1]	95.5	96.5	92.9	110.8	100.4	97.8	109.9
Average annual percent change:							
1958-80	3.3	2.0	2.0	1.9	2.2	2.2	2.0
1976-80	3.5	2.8	2.1	5.4	3.6	3.1	5.6

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census.

Chart 76. Fabricated structural metal (SIC 3441): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 148. Fabricated structural metal (SIC 3441): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	80.2	79.3	83.2	81.3	80.0	85.2
1959	78.6	79.7	75.2	79.7	80.7	78.8
1960	81.1	81.0	81.1	84.7	85.3	82.9
1961	85.2	84.4	87.8	87.3	86.3	89.4
1962	88.5	86.7	94.0	91.6	90.1	95.9
1963	91.9	90.4	95.8	93.4	91.8	97.8
1964	92.9	91.5	97.7	96.5	95.1	100.2
1965	97.1	94.9	103.9	98.5	97.3	106.2
1966	95.0	92.3	103.4	97.0	94.4	105.1
1967	96.6	94.8	102.3	99.4	97.8	104.1
1968	100.3	98.5	105.9	102.7	101.3	106.2
1969	99.8	99.0	102.2	102.9	102.0	105.5
1970	102.2	102.2	102.0	105.8	104.6	108.5
1971	107.6	106.9	109.5	109.7	108.7	112.8
1972	110.8	109.8	113.3	110.6	109.0	112.3
1973	113.0	112.7	113.8	112.8	111.9	115.3
1974	106.9	106.0	109.4	108.0	106.3	112.6
1975	97.4	96.9	98.6	97.1	95.8	100.7
1976	98.9	98.7	99.0	98.7	98.1	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.4	99.3	103.9	100.2	98.9	103.9
1979	102.0	100.2	107.5	101.9	99.9	107.8
1980	101.9	99.7	109.2	102.2	99.6	110.1
1981 [2]	106.7	105.3	111.0	107.1	105.5	111.4
Average annual percent change:						
1958-81	1.1	1.1	1.1	1.0	.9	1.1
1976-81	1.3	.9	2.5	1.4	1.0	2.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the American Institute of Steel Construction. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 149. Fabricated structural metal (SIC 3441): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	74.7	93.1	94.2	89.8	91.9	93.4	87.7
1959	66.3	84.4	83.2	88.2	83.2	82.2	86.3
1960	74.9	92.4	92.5	92.3	88.4	87.8	90.4
1961	74.0	86.9	87.7	84.3	84.8	85.7	82.8
1962	73.1	82.6	84.3	77.8	79.8	81.1	76.2
1963	80.3	87.4	88.8	83.8	86.0	87.5	82.1
1964	85.6	92.1	93.6	87.6	88.7	90.0	85.4
1965	93.2	96.0	98.2	89.7	93.7	95.8	87.8
1966	95.2	100.2	103.1	92.1	98.1	100.9	90.6
1967	107.6	111.4	113.5	105.2	108.2	110.0	103.4
1968	107.9	107.6	109.5	101.9	105.1	106.5	101.6
1969	108.3	108.5	109.4	106.0	105.2	106.2	102.7
1970	106.4	104.1	104.1	104.3	100.6	101.7	98.1
1971	106.4	98.9	99.5	97.2	97.0	97.9	94.3
1972	116.1	104.8	105.7	102.5	105.0	105.6	103.4
1973	119.7	105.9	106.2	105.2	106.1	107.0	103.8
1974	112.6	105.3	106.2	102.9	104.3	105.9	100.0
1975	101.1	103.8	104.3	102.5	104.1	105.5	100.4
1976	96.0	97.1	97.3	97.0	97.3	97.9	95.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.5	101.1	102.2	97.7	101.3	102.6	97.7
1979	111.9	109.7	111.7	104.1	109.8	112.0	103.8
1980	121.3	119.0	121.7	111.1	118.7	121.8	110.2
1981 [1]	124.4	116.6	118.1	112.1	116.2	117.9	111.7
Average annual percent change:							
1958-81	2.2	1.1	1.1	1.0	1.2	1.2	1.1
1976-81	5.8	4.4	4.8	3.2	4.3	4.7	3.3

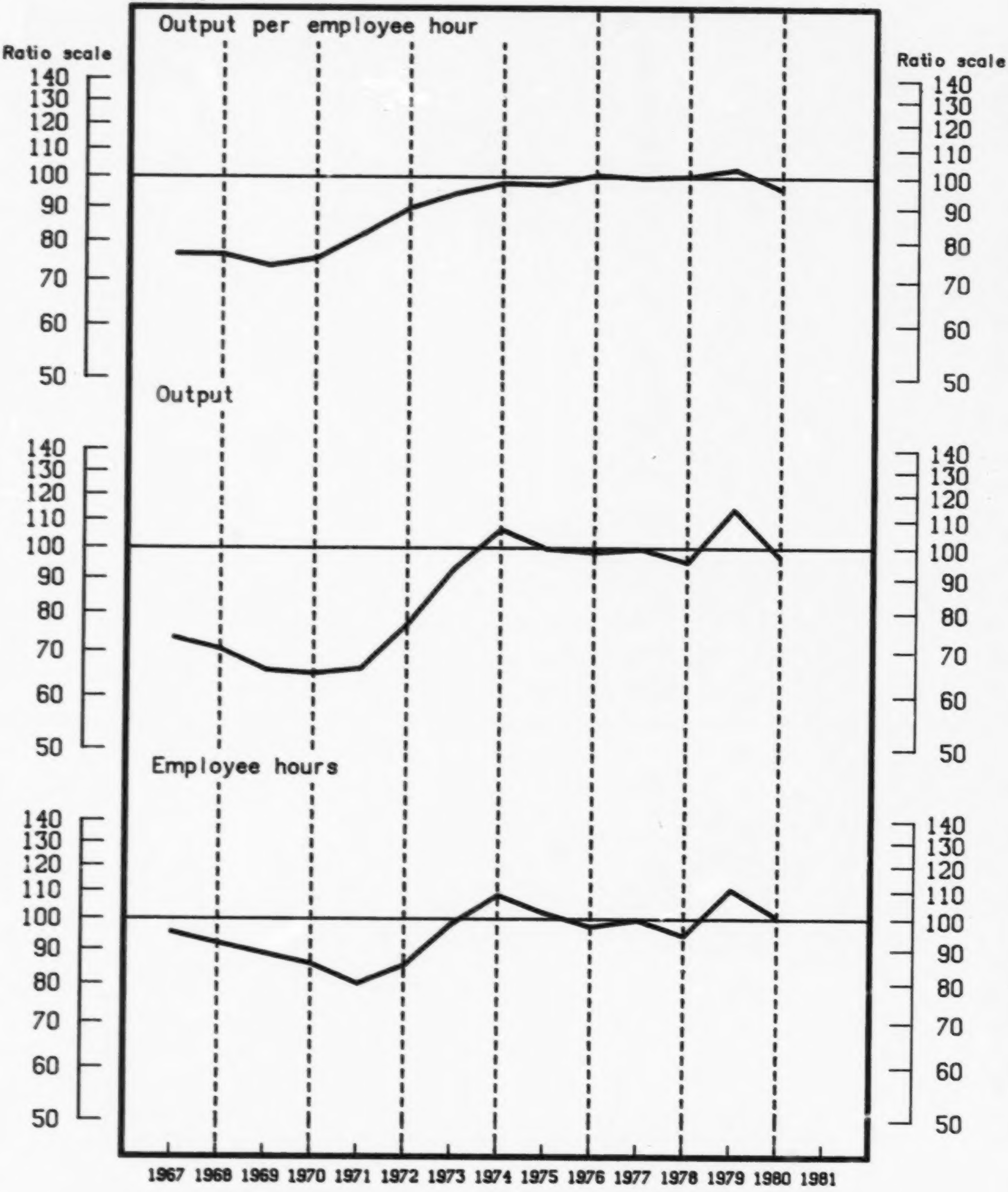
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, based on data from the Bureau of the Census, the Bureau of Labor Statistics, and the American Institute of Steel Construction. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 77. Farm and garden machinery (SIC 352): Output per hour and related data, 1967-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 150. Farm and garden machinery (SIC 352): Indexes of output per employee hour and output per employee, 1958–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	65.1	64.9	65.5	66.2	66.0	66.8
1959	65.1	63.4	70.3	67.5	66.1	71.4
1960	60.5	61.3	58.6	63.0	64.5	59.2
1961	62.9	61.3	67.7	64.9	63.9	67.7
1962	65.1	65.1	64.8	66.8	67.7	64.6
1963	66.6	64.3	74.3	69.4	67.8	74.1
1964	70.2	66.9	82.0	73.7	71.1	82.0
1965	72.2	68.6	84.8	75.6	72.8	84.5
1966	76.7	72.3	92.7	80.9	77.6	92.0
1967	76.8	73.3	88.8	78.5	75.6	88.1
1968	76.7	75.0	82.1	79.1	77.0	85.6
1969	73.8	73.2	75.9	75.5	74.7	77.9
1970	75.7	75.2	77.3	76.8	76.2	78.4
1971	82.4	83.0	81.0	83.8	84.3	82.4
1972	90.1	87.0	99.9	92.9	90.0	101.8
1973	94.8	90.7	109.2	97.4	93.2	111.3
1974	98.2	92.6	118.3	102.2	96.9	120.1
1975	97.7	95.3	105.2	100.9	99.0	106.4
1976	101.1	100.5	103.1	102.2	101.4	104.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.8	100.1	103.1	101.0	100.2	103.1
1979	103.2	101.7	108.0	104.7	103.5	108.5
1980 [2]	96.3	99.6	88.1	95.6	98.3	88.7
Average annual percent change:						
1958-80	2.6	2.7	2.4	2.5	2.5	2.4
1976-80	-.7	([3])	-2.3	-.9	-.3	-2.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 151. Farm and garden machinery (SIC 352): Indexes of output, employee hours, and employees, 1958–80

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	49.4	75.9	76.1	75.4	74.6	74.8	74.0
1959	52.5	80.7	82.8	74.7	77.8	79.4	73.5
1960	42.9	70.9	70.0	73.2	68.1	66.5	72.5
1961	45.7	72.7	74.5	67.5	70.4	71.5	67.5
1962	48.8	75.0	75.0	75.3	73.0	72.1	75.5
1963	53.7	80.6	83.5	72.3	77.4	79.2	72.5
1964	60.1	85.6	89.9	73.3	81.5	84.5	73.3
1965	64.0	88.6	93.3	75.5	84.7	87.9	75.7
1966	76.4	99.6	105.6	82.4	94.4	98.5	83.0
1967	73.6	95.8	100.4	82.9	93.7	97.4	83.5
1968	70.8	92.3	94.4	86.2	89.5	92.0	82.7
1969	65.8	89.1	89.9	86.7	87.1	88.1	84.5
1970	65.1	86.0	86.6	84.2	84.8	85.4	83.0
1971	66.2	80.3	79.8	81.7	79.0	78.5	80.3
1972	77.1	85.6	88.6	77.2	83.0	85.7	75.7
1973	93.5	98.6	103.1	85.6	96.0	100.3	84.0
1974	106.9	108.9	115.4	90.4	104.6	110.3	89.0
1975	100.0	102.4	104.9	95.1	99.1	101.0	94.0
1976	98.9	97.8	98.4	95.9	96.8	97.5	94.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	95.6	94.8	95.5	92.7	94.7	95.4	92.7
1979	114.7	111.1	112.8	106.2	109.5	110.8	105.7
1980 [1]	97.4	101.1	97.8	110.6	101.9	99.1	109.8
Average annual percent change:							
1958-80	4.2	1.5	1.5	1.8	1.7	1.7	1.7
1976-80	1.1	1.7	1.1	3.5	2.0	1.4	3.6

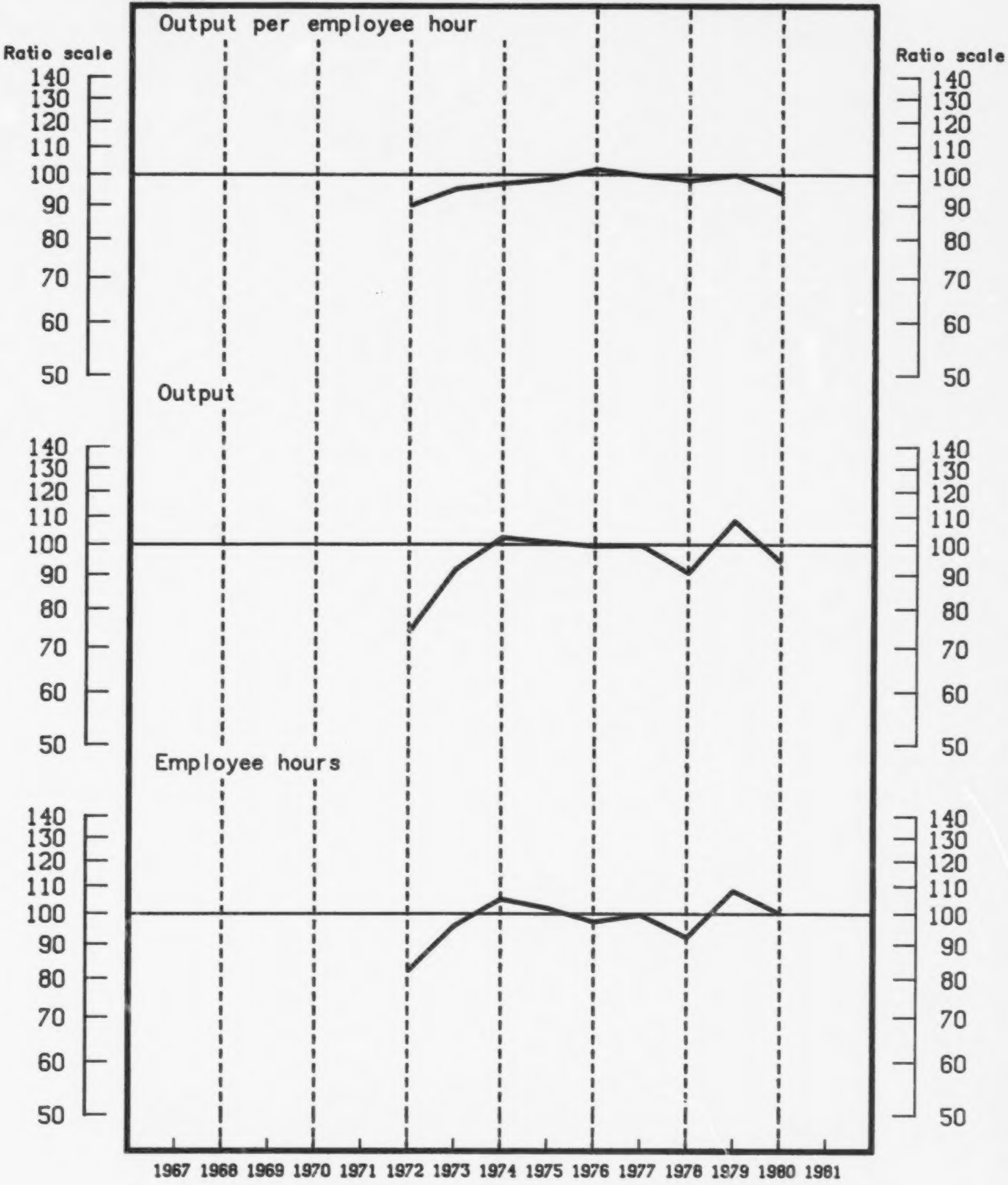
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 78. Farm machinery and equipment (SIC 3523): Output per hour and related data, 1972-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 152. Farm machinery and equipment (SIC 3523): Indexes of output per employee hour and output per employee, 1972-80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	90.2	86.3	103.3	93.1	89.3	105.4
1973	95.6	91.1	111.5	98.2	93.6	113.8
1974	97.3	91.0	120.5	101.7	95.7	122.6
1975	98.8	95.6	109.2	102.1	99.3	110.5
1976	102.2	101.3	104.7	102.8	101.7	106.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.4	97.6	100.6	98.8	98.3	100.6
1979	100.2	98.6	105.2	101.9	100.6	105.6
1980 [2]	94.0	96.6	87.2	93.1	95.2	87.8
Average annual percent change:						
1972-80	.6	1.5	-2.1	.1	.9	-2.4
1976-80	-1.6	-1.1	-3.1	-1.8	-1.3	-3.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 153. Farm machinery and equipment (SIC 3523): Indexes of output, employee hours, and employees, 1972-80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	74.2	82.3	86.0	71.8	79.7	83.1	70.4
1973	92.1	96.3	101.1	82.6	93.6	98.4	80.9
1974	102.7	105.6	112.9	85.2	101.0	107.3	83.8
1975	101.1	102.3	105.7	92.6	99.0	101.8	91.5
1976	99.7	97.6	98.4	95.2	97.0	98.0	94.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	91.1	92.6	93.3	90.6	92.2	92.7	90.6
1979	108.9	108.7	110.5	103.5	106.9	108.2	103.1
1980 [1]	94.6	100.6	97.9	108.5	101.6	99.4	107.7
Average annual percent change:							
1972-80	2.1	1.5	.6	4.3	2.0	1.2	4.6
1976-80	-.2	1.5	.9	3.0	1.6	1.1	3.1

[1] Preliminary.

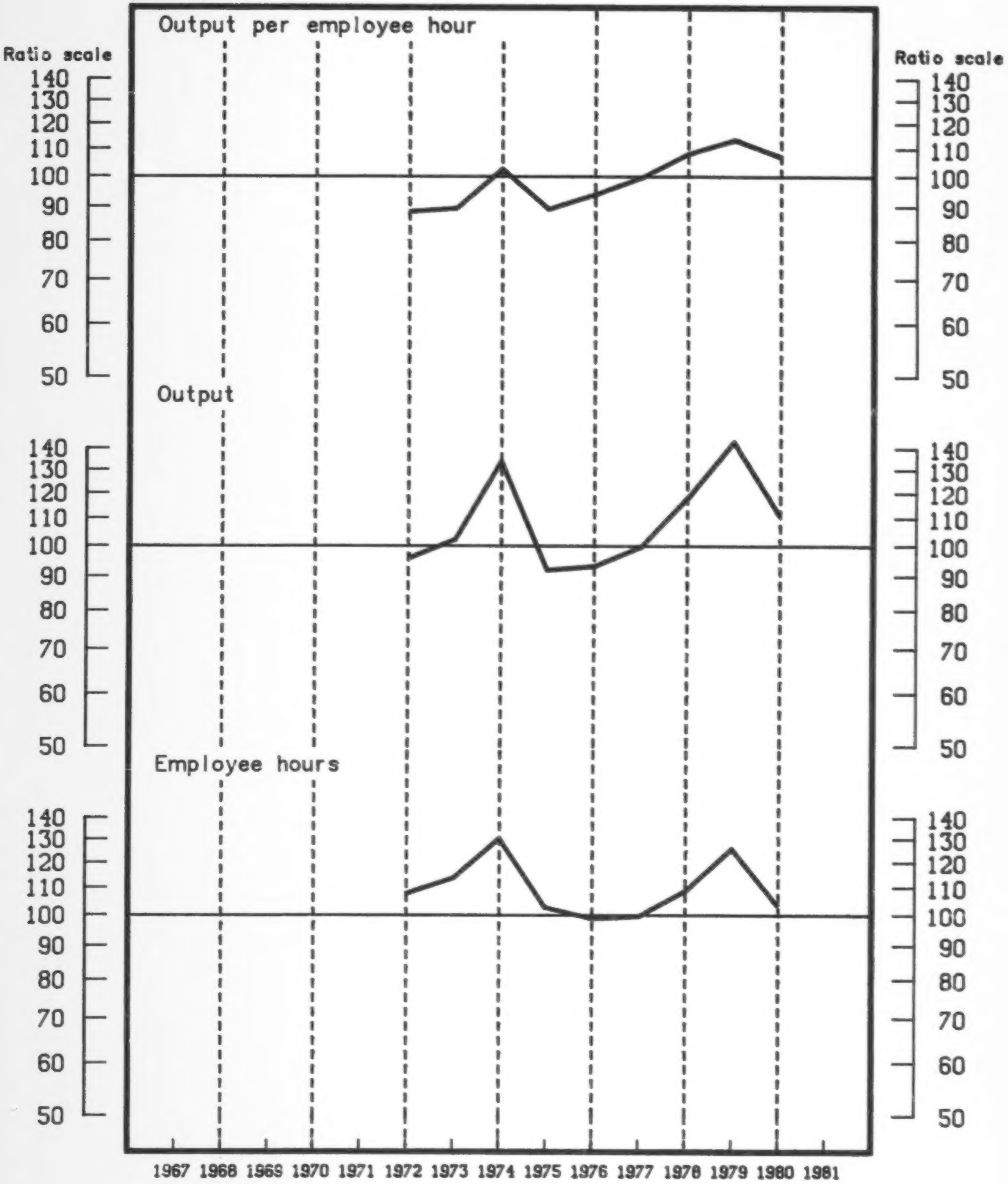
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 79. Lawn and garden equipment (SIC 3524): Output per hour and related data, 1972-80

(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

Table 154. Lawn and garden equipment (SIC 3524): Indexes of output per employee hour and output per employee, 1972–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	88.8	90.8	83.3	91.0	93.6	84.1
1973	89.8	88.2	95.2	92.6	91.4	96.6
1974	103.0	102.1	105.8	104.5	103.8	106.6
1975	89.6	92.7	81.5	92.3	96.2	82.3
1976	94.3	94.8	92.5	98.0	99.6	93.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.6	108.1	110.1	106.2	105.0	109.6
1979	113.9	112.7	118.0	113.8	112.6	117.6
1980 [2]	107.4	114.4	90.6	107.6	114.6	91.1
Average annual percent change:						
1972-80	2.9	3.1	2.1	2.4	2.5	2.0
1976-80	4.0	5.1	1.2	3.2	4.1	1.1

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 155. Lawn and garden equipment (SIC 3524): Indexes of output, employee hours, and employees, 1972–80

(1977 = 100)

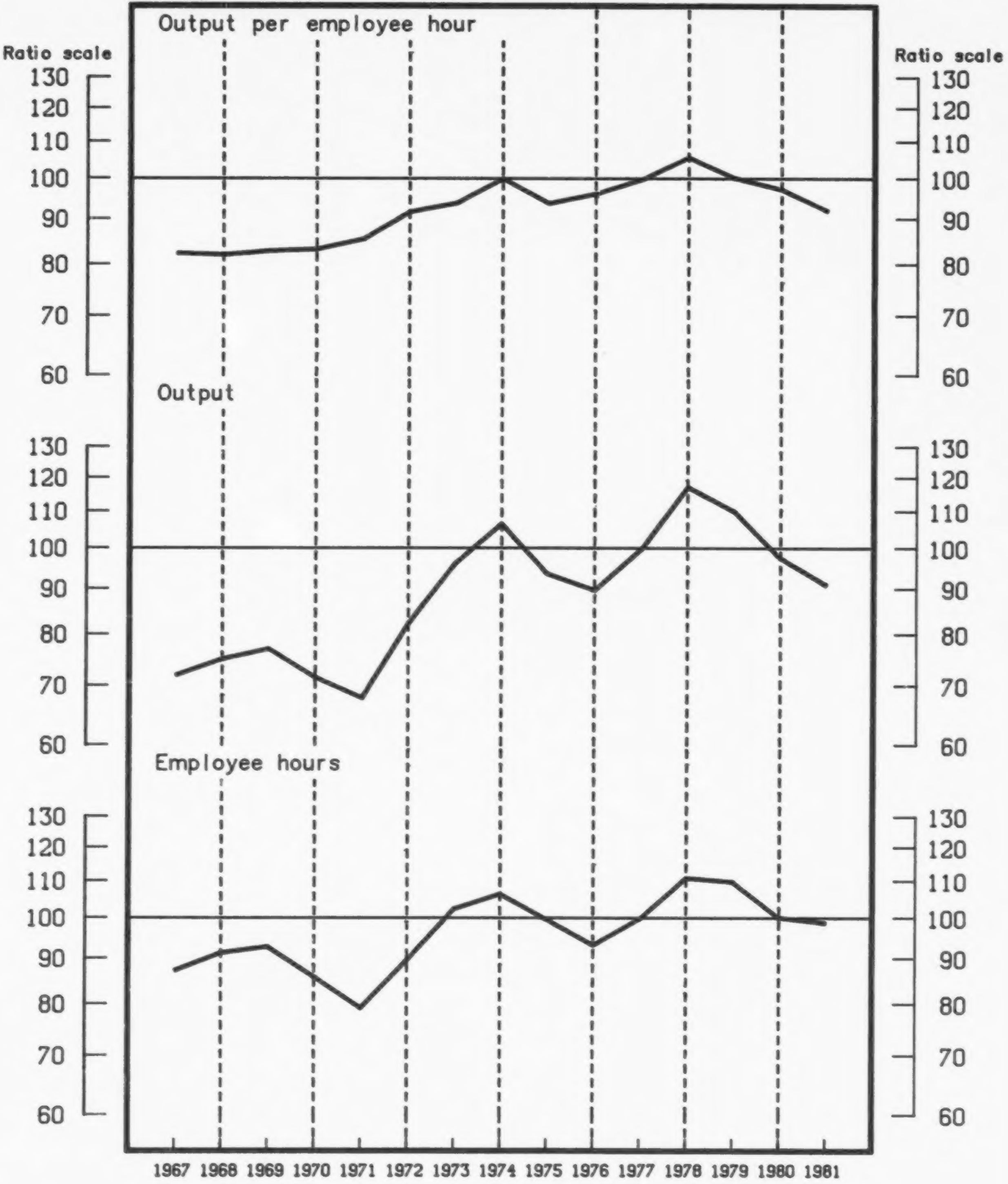
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	96.1	108.2	105.8	115.4	105.6	102.7	114.3
1973	102.5	114.1	116.2	107.7	110.7	112.2	106.1
1974	134.9	131.0	132.1	127.5	129.1	129.9	126.5
1975	92.3	103.0	99.6	113.2	100.0	95.9	112.2
1976	93.5	99.2	98.6	101.1	95.4	93.9	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	118.6	109.2	109.7	107.7	111.7	112.9	108.2
1979	144.0	126.4	127.8	122.0	126.5	127.9	122.4
1980 [1]	111.5	103.8	97.5	123.1	103.6	97.3	122.4
Average annual percent change:							
1972-80	2.4	-.4	-.7	.3	.1	-.1	.5
1976-80	7.4	3.3	2.3	6.1	4.1	3.2	6.3

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 80. Construction machinery and equipment (SIC 3531): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 156. Construction machinery and equipment (SIC 3531): Indexes of output per employee hour and output per employee, 1958-81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	74.2	77.0	67.8	73.5	75.4	69.1
1959	69.6	68.4	73.5	73.6	73.2	74.5
1960	62.3	63.7	59.3	63.4	65.0	59.8
1961	68.2	68.5	67.5	69.4	70.2	67.4
1962	74.1	72.8	77.8	76.3	76.0	77.5
1963	75.0	72.2	83.4	78.3	76.6	83.0
1964	77.9	73.8	91.4	82.2	79.2	91.4
1965	80.0	75.4	95.1	84.3	80.8	94.7
1966	81.2	75.1	104.1	87.1	82.1	103.0
1967	82.5	79.1	93.0	84.1	81.3	92.2
1968	82.2	80.3	87.5	84.9	82.6	91.0
1969	83.0	79.9	92.6	86.8	84.0	94.7
1970	83.4	82.0	87.3	85.9	84.8	88.5
1971	85.6	85.3	86.6	87.1	86.6	88.1
1972	91.9	89.0	100.5	95.9	93.5	102.2
1973	94.0	90.0	106.2	99.1	95.9	108.2
1974	100.2	96.0	112.9	105.3	102.0	114.6
1975	93.9	92.3	98.2	96.9	95.9	99.3
1976	96.3	97.8	92.3	96.5	97.7	93.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	104.4	109.8	108.0	107.3	109.8
1979	100.3	101.3	98.0	97.8	97.6	98.3
1980	97.4	102.1	86.8	96.1	100.0	87.4
1981 [2]	92.1	96.5	82.2	92.4	97.0	82.5
Average annual percent change:						
1958-81	1.8	2.0	1.5	1.7	1.8	1.5
1976-81	-1.0	-.1	-3.1	-1.2	-.4	-3.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 157. Construction machinery and equipment (SIC 3531): Indexes of output, employee hours, and employees, 1958-81

(1977 = 100)

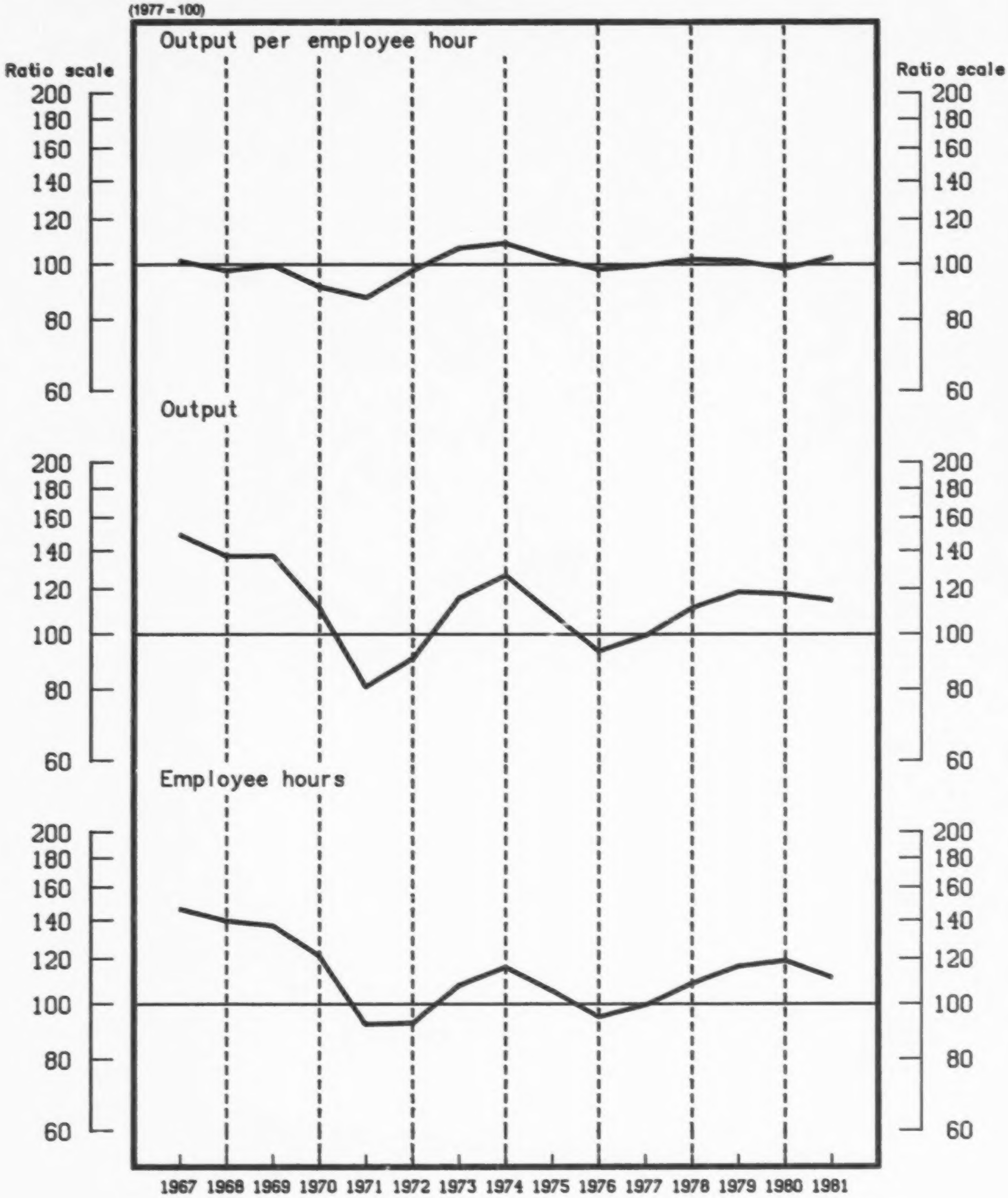
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	45.1	60.8	58.6	66.5	61.4	59.8	65.3
1959	53.4	76.7	78.1	72.7	72.6	73.0	71.7
1960	45.6	73.2	71.6	76.9	71.9	70.2	76.2
1961	42.5	62.3	62.0	63.0	61.2	60.5	63.1
1962	48.7	65.7	66.9	62.6	63.8	64.1	62.8
1963	52.7	70.3	73.0	63.2	67.3	68.8	63.5
1964	61.6	79.1	83.5	67.4	74.9	77.8	67.4
1965	65.9	82.4	87.4	69.3	78.2	81.6	69.6
1966	68.0	83.7	90.6	65.3	78.1	82.8	66.0
1967	72.1	87.4	91.2	77.5	85.7	88.7	78.2
1968	75.2	91.5	93.7	85.9	86.6	91.0	82.6
1969	77.2	93.0	96.6	83.4	88.9	91.9	81.5
1970	71.7	86.0	87.4	82.1	83.5	84.6	81.0
1971	68.0	79.4	79.7	78.5	78.1	78.5	77.2
1972	82.6	89.9	92.8	82.2	86.1	88.3	80.8
1973	96.4	102.6	107.1	90.8	97.3	100.5	89.1
1974	106.8	106.6	111.2	94.6	101.4	104.7	93.2
1975	93.7	99.8	101.5	95.4	96.7	97.7	94.4
1976	89.9	93.4	91.9	97.4	93.2	92.0	96.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	117.5	111.1	112.6	107.0	108.8	109.5	107.0
1979	110.3	110.0	108.9	112.6	112.8	113.0	112.2
1980	97.7	100.3	95.7	112.5	101.7	97.7	111.8
1981 [1]	91.1	98.9	94.4	110.8	98.6	93.9	110.4
Average annual percent change:							
1958-81	4.1	2.2	2.1	2.6	2.4	2.3	2.6
1976-81	-.2	.8	-.1	3.0	1.1	.2	3.1

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 81. Machine tools (SIC 3541, 3542): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 158. Machine tools (SIC 3541, 3542): Indexes of output per employee hour and output per employee, 1958-81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	71.5	68.6	78.1	69.5	64.9	79.5
1959	88.0	80.9	106.6	87.8	79.4	108.2
1960	84.7	77.6	103.1	84.8	77.0	104.0
1961	84.5	78.8	98.6	82.5	75.6	98.5
1962	88.5	81.5	106.8	89.0	81.4	106.5
1963	90.1	84.0	105.3	93.0	87.4	105.0
1964	99.9	90.9	124.4	106.0	98.0	124.2
1965	101.4	91.7	128.6	108.3	99.5	128.4
1966	111.7	99.8	146.3	120.0	109.4	145.3
1967	101.8	92.2	128.4	107.1	98.4	127.6
1968	97.9	92.4	111.4	102.1	95.5	116.0
1969	100.1	95.2	111.5	103.7	98.5	114.3
1970	91.7	89.8	96.0	93.0	90.7	97.2
1971	87.9	91.6	81.6	86.3	88.4	83.1
1972	98.0	97.0	100.2	99.1	97.4	102.1
1973	107.3	101.7	120.5	111.3	105.8	122.8
1974	109.4	102.7	125.4	112.7	105.9	127.4
1975	103.0	101.7	106.0	102.2	99.5	107.2
1976	98.4	97.4	100.4	96.5	93.7	101.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.5	99.2	109.8	103.9	100.8	109.9
1979	101.9	97.7	111.4	103.1	98.8	111.9
1980	96.7	96.4	103.6	98.6	95.6	104.4
1981 [2]	103.2	105.0	99.9	100.2	100.0	100.3
Average annual percent change:						
1958-81	.9	1.3	(3)	.8	1.2	.1
1976-81	.6	.7	.3	.4	.5	.2

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 159. Machine tools (SIC 3541, 3542): Indexes of output, employee hours, and employees, 1958-81

(1977 = 100)

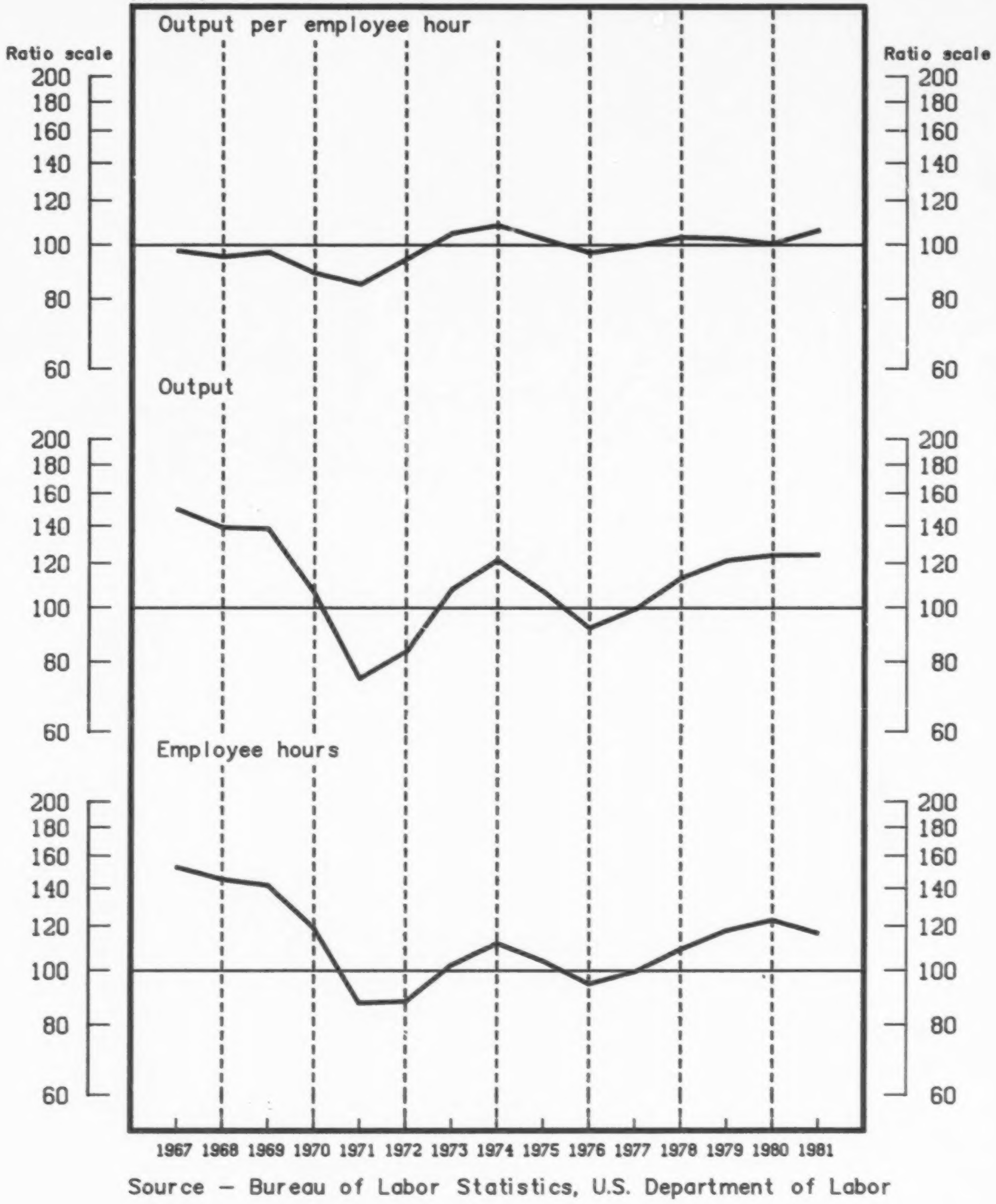
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	63.0	88.1	91.9	80.7	90.6	97.0	79.2
1959	79.2	90.0	97.9	74.3	90.2	99.8	73.2
1960	82.8	97.8	106.7	80.3	97.6	107.6	79.6
1961	77.4	91.6	98.2	78.5	93.8	102.4	78.6
1962	88.0	99.4	108.0	82.4	98.9	108.1	82.6
1963	93.0	103.2	110.7	88.3	100.0	106.4	88.6
1964	112.3	112.4	123.6	90.3	105.9	114.6	90.4
1965	125.3	123.6	136.6	97.4	115.7	125.9	97.6
1966	156.1	139.8	156.4	106.7	130.1	142.7	107.4
1967	149.9	147.3	162.6	116.7	139.9	152.4	117.5
1968	137.6	140.5	148.9	123.5	134.8	144.1	118.6
1969	137.8	137.7	144.7	123.6	132.9	139.9	120.6
1970	112.0	122.1	124.7	116.7	120.4	123.5	115.2
1971	81.4	92.6	88.9	99.8	94.3	92.1	98.0
1972	91.2	93.1	94.0	91.0	92.0	93.6	89.3
1973	116.3	108.4	114.3	96.5	104.5	109.9	94.7
1974	127.4	116.5	124.1	101.6	113.0	120.3	100.0
1975	109.1	105.9	107.3	102.9	106.7	109.6	101.8
1976	93.9	95.4	96.4	93.5	97.3	100.2	92.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.8	109.1	112.7	101.8	107.6	110.9	101.7
1979	119.1	116.9	121.9	106.9	115.5	120.6	106.4
1980	118.1	119.6	122.5	114.0	119.8	123.6	113.1
1981 [1]	115.2	111.6	109.7	115.3	115.0	115.2	114.8
Average annual percent change:							
1958-81	1.4	.4	.1	1.3	.5	.1	1.3
1976-81	4.6	4.1	3.9	4.3	4.2	4.1	4.4

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 82. Metal cutting machine tools (SIC 3541): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 160. Metal cutting machine tools (SIC 3541): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	67.6	63.9	75.8	65.3	60.0	77.3
1959	83.2	78.7	93.0	83.5	78.3	94.5
1960	81.5	76.6	62.3	82.0	76.6	93.1
1961	80.0	76.5	87.2	78.7	74.5	87.2
1962	83.2	78.3	94.2	83.8	78.8	94.0
1963	84.3	78.3	97.9	86.0	80.4	97.6
1964	94.9	86.0	117.4	99.7	91.5	117.5
1965	98.7	88.4	125.7	104.8	95.6	125.3
1966	107.8	95.7	141.3	115.3	104.5	140.0
1967	96.0	87.5	126.2	102.7	92.9	125.2
1968	95.7	89.0	111.0	98.6	90.8	115.7
1969	97.5	91.7	110.2	100.1	93.9	113.0
1970	89.5	88.1	91.9	89.4	87.4	93.3
1971	85.5	89.3	78.7	82.8	84.5	80.3
1972	94.6	94.3	95.6	95.0	93.7	97.6
1973	105.5	99.8	117.8	107.8	101.9	119.9
1974	108.9	101.2	126.5	112.0	103.9	128.6
1975	102.9	100.7	107.3	101.8	98.4	108.4
1976	97.3	96.4	99.0	94.7	91.9	100.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.6	98.8	114.3	105.2	100.5	114.3
1979	103.1	97.6	115.4	105.3	99.8	115.9
1980	100.9	96.7	110.0	101.9	97.3	110.7
1981 [2]	106.7	106.2	107.5	104.7	103.0	107.8
Average annual percent change:						
1958-81	1.3	1.5	.7	1.2	1.5	.7
1976-81	1.4	1.1	2.0	1.6	1.4	2.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 161. Metal cutting machine tools (SIC 3541): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	58.1	85.9	90.9	76.6	89.0	96.9	75.2
1959	74.2	89.2	94.3	79.8	88.9	94.8	78.5
1960	81.0	99.4	105.7	87.8	98.8	105.8	87.0
1961	72.7	90.9	95.0	83.4	92.4	97.6	83.4
1962	83.0	99.7	106.0	88.1	99.0	105.3	88.3
1963	88.4	104.9	112.9	90.3	102.8	109.9	90.6
1964	109.2	115.1	127.0	93.0	109.5	119.3	92.9
1965	124.8	126.4	141.1	99.3	119.1	130.5	98.6
1966	154.7	143.5	161.6	109.5	134.2	148.1	110.5
1967	150.6	153.6	172.1	119.3	146.6	162.1	120.3
1968	139.8	146.1	157.0	125.9	141.8	154.0	120.8
1969	139.0	142.5	151.5	126.1	138.9	148.1	123.0
1970	107.2	119.8	121.7	116.7	119.9	122.7	114.9
1971	75.2	88.0	84.2	95.5	90.8	89.0	93.7
1972	83.9	88.5	89.0	87.6	88.3	89.5	86.0
1973	108.6	102.9	108.8	92.2	100.7	106.6	90.6
1974	122.3	112.3	120.8	96.7	109.2	117.7	95.1
1975	107.5	104.5	106.7	100.2	105.6	109.2	99.2
1976	92.5	95.1	98.0	93.4	97.7	100.6	92.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.7	109.7	115.1	99.5	108.1	113.1	99.5
1979	122.2	118.5	125.2	105.9	116.1	122.5	105.4
1980	124.7	123.6	129.0	113.4	122.4	128.2	112.6
1981 [1]	124.8	117.0	117.5	116.1	119.2	121.2	115.8
Average annual percent change:							
1958-81	1.7	.5	.2	1.0	.5	.3	1.0
1976-81	6.6	5.1	5.5	4.5	4.9	5.1	4.5

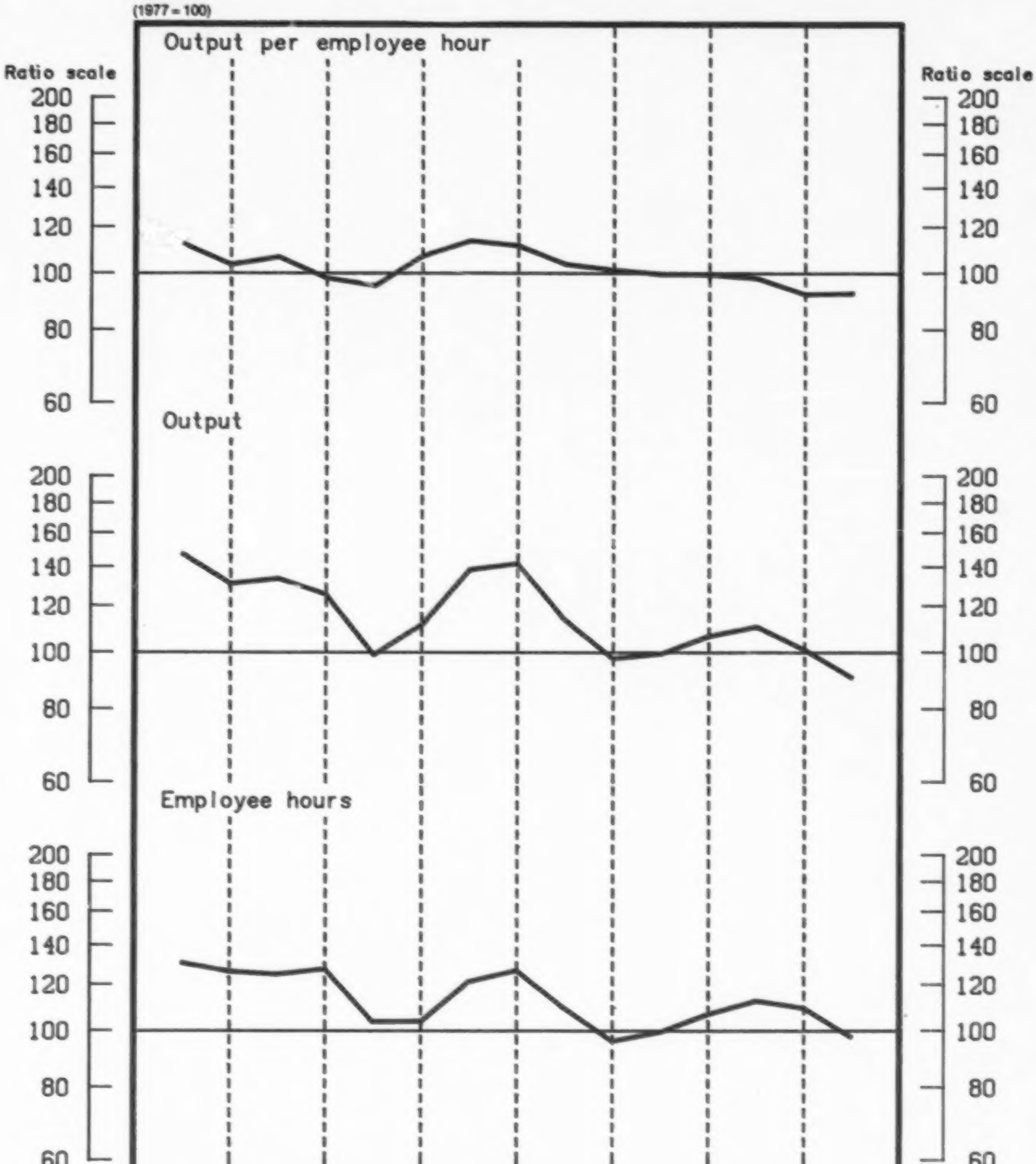
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 83. Metal forming machine tools (SIC 3542): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 162. Metal forming machine tools (SIC 3542): Indexes of output per employee hour and output per employee, 1958–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	83.6	83.2	84.5	82.5	80.9	86.4
1959	102.8	89.0	160.4	101.1	85.5	164.2
1960	94.5	81.4	152.0	94.1	79.5	153.5
1961	98.0	86.6	141.4	93.9	80.8	142.7
1962	105.7	92.5	158.8	105.8	91.3	158.8
1963	108.4	101.3	129.8	115.3	109.5	129.7
1964	115.5	105.8	147.6	126.0	117.7	147.4
1965	109.3	100.5	137.9	118.2	110.6	138.2
1966	123.1	111.3	164.4	134.2	123.8	162.9
1967	112.7	105.0	136.2	120.0	113.9	135.4
1968	103.9	100.7	112.4	112.0	109.3	117.8
1969	107.0	103.9	115.4	113.7	111.5	118.7
1970	98.5	95.4	107.0	103.5	101.0	108.1
1971	95.7	99.3	88.3	98.7	100.1	90.1
1972	107.5	108.0	111.2	110.3	108.7	113.6
1973	114.1	109.2	127.4	122.2	118.6	130.6
1974	111.9	108.0	122.4	116.5	113.0	124.6
1975	104.0	104.5	102.8	104.1	103.7	104.5
1976	101.7	100.5	104.8	101.6	99.3	106.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	100.2	99.4	100.8	101.5	99.4
1979	98.4	97.3	101.1	97.6	95.8	101.8
1980	92.4	94.6	87.7	89.4	89.8	88.6
1981 [2]	92.8	99.3	80.5	86.9	89.8	81.3
Average annual percent change:						
1958-81	-.1	.5	-2.0	-.3	.4	-2.0
1976-81	-2.0	-.7	-4.7	-3.2	-2.5	-4.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 163. Metal forming machine tools (SIC 3542): Indexes of output, employee hours, and employees, 1958–81

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	78.4	93.8	94.2	92.8	95.0	96.9	90.7
1959	95.1	92.5	106.8	59.3	94.1	111.2	57.9
1960	88.9	94.1	109.2	58.5	94.5	111.8	57.9
1961	91.9	93.8	106.1	65.0	97.9	113.8	64.4
1962	104.3	98.7	112.8	65.7	98.6	114.3	65.7
1963	107.5	99.2	106.1	82.8	93.2	98.2	82.9
1964	122.2	105.8	115.5	82.8	97.0	103.8	82.9
1965	127.1	116.3	126.5	92.2	107.5	114.9	92.0
1966	160.8	130.6	144.5	97.8	119.8	129.9	98.7
1967	147.9	131.2	140.8	108.6	123.2	129.9	109.2
1968	131.7	126.8	130.8	117.2	117.6	120.5	111.8
1969	134.3	125.5	129.3	116.4	118.1	120.5	113.1
1970	126.2	128.1	132.3	117.9	121.9	124.9	115.7
1971	98.6	104.1	100.3	112.8	103.0	99.5	110.5
1972	112.1	104.3	105.8	100.8	101.6	103.1	98.7
1973	139.2	122.0	127.5	109.3	113.9	117.4	106.6
1974	142.5	127.4	132.0	116.4	122.3	126.1	114.4
1975	114.1	109.7	109.2	111.0	109.6	110.0	109.2
1976	98.1	96.5	97.6	93.6	96.6	98.8	92.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.2	107.3	107.0	107.9	106.3	105.6	107.9
1979	111.2	113.0	114.3	110.0	113.9	116.1	109.2
1980	101.5	109.8	107.3	115.7	113.5	113.0	114.5
1981 [1]	90.9	97.9	91.5	112.9	104.6	101.2	111.8
Average annual percent change:							
1958-81	.3	.4	-.3	2.3	.5	-.1	2.3
1976-81	-.9	1.2	-.1	4.1	2.4	1.7	4.1

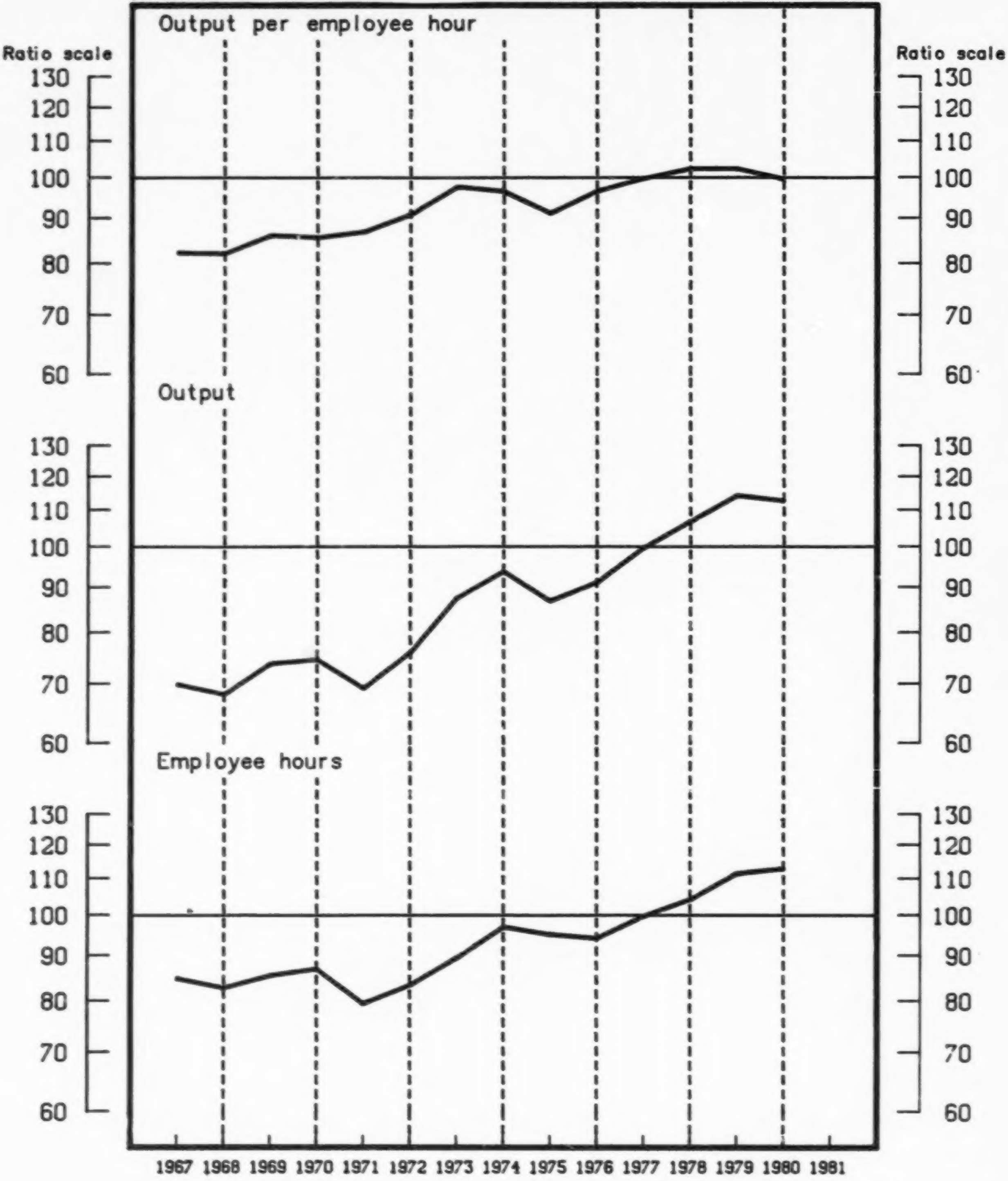
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 84. Pumps and compressors (SIC 3561, 3563): Output per hour and related data, 1967-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 164. Pumps and compressors (SIC 3561, 3563): Indexes of output per employee hour and output per employee, 1958–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	64.5	64.5	64.5	65.1	64.7	65.7
1959	68.8	66.9	72.5	69.3	67.1	73.6
1960	66.6	65.2	69.0	67.5	66.2	69.7
1961	69.2	68.3	70.7	70.1	69.9	70.8
1962	73.6	72.8	75.2	74.9	75.0	75.0
1963	78.2	75.5	84.0	80.2	78.5	83.5
1964	79.4	76.2	85.6	82.5	80.8	85.5
1965	81.0	77.2	88.8	83.8	81.1	88.7
1966	81.2	76.5	91.1	85.2	82.4	90.4
1967	82.5	78.9	89.6	85.1	83.0	88.8
1968	82.3	82.0	82.8	85.1	84.3	86.2
1969	86.3	84.5	89.6	88.8	87.1	91.8
1970	85.8	85.8	85.9	87.2	87.3	87.1
1971	87.1	89.8	82.8	87.4	89.4	84.4
1972	91.1	90.7	91.9	92.4	91.6	93.5
1973	97.9	95.9	101.4	99.1	96.7	103.3
1974	96.7	93.6	102.5	96.6	92.6	104.1
1975	91.4	92.2	89.9	90.7	90.6	90.9
1976	96.8	97.8	95.1	96.9	97.4	96.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	102.3	103.1	101.9	101.2	103.1
1979	102.5	102.1	103.2	101.6	100.4	103.6
1980 [2]	99.8	101.2	97.7	99.1	99.6	98.4
Average annual percent change:						
1958-80	2.1	2.2	1.8	1.9	2.0	1.8
1976-80	.9	.9	.9	.6	.5	.8

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 165. Pumps and compressors (SIC 3561, 3563): Indexes of output, employee hours, and employees, 1958–80

(1977 = 100)

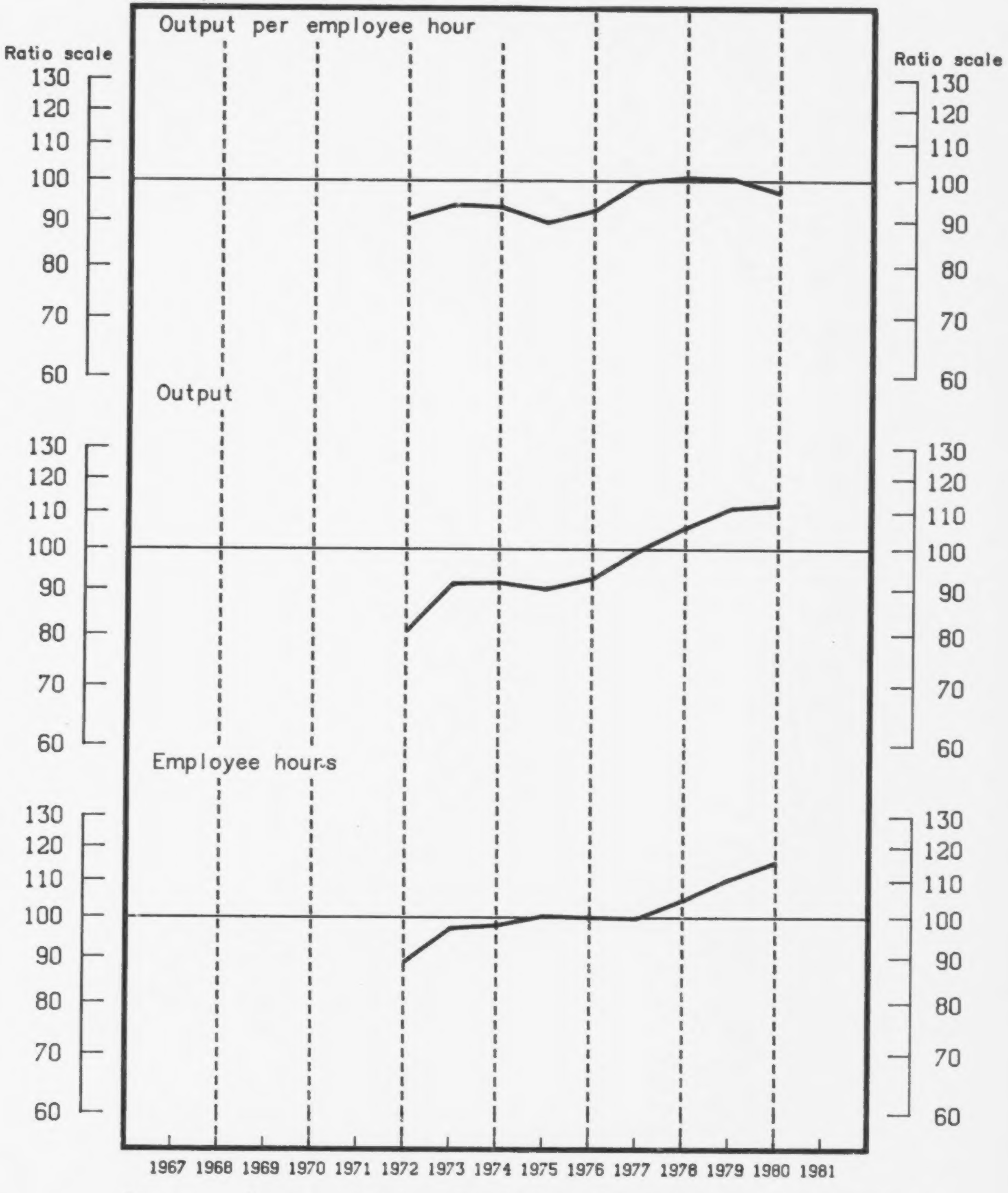
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	41.1	63.7	63.7	63.7	63.1	63.5	62.6
1959	43.4	63.1	64.9	59.9	62.6	64.7	59.0
1960	44.6	67.0	68.4	64.6	66.1	67.4	64.0
1961	43.9	63.4	64.3	62.1	62.6	62.8	62.0
1962	48.6	66.0	66.8	64.6	64.9	64.8	64.8
1963	51.8	66.2	68.6	61.7	64.6	66.0	62.0
1964	59.0	74.3	77.4	68.9	71.5	73.0	69.0
1965	65.3	80.6	84.6	73.5	77.9	80.5	73.6
1966	70.6	86.9	92.3	77.5	82.9	85.7	78.1
1967	70.1	85.0	88.9	78.2	82.4	84.5	78.9
1968	68.3	83.0	83.3	82.5	80.3	81.0	79.2
1969	74.0	85.7	87.6	82.6	83.3	85.0	80.6
1970	74.8	87.2	87.2	87.1	85.8	85.7	85.9
1971	69.4	79.7	77.3	83.8	79.4	77.6	82.2
1972	76.2	83.6	84.0	82.9	82.5	83.2	81.5
1973	87.8	89.7	91.6	86.6	88.6	90.8	85.0
1974	94.0	97.2	100.4	91.7	97.3	101.5	90.3
1975	87.1	95.3	94.5	96.9	96.0	96.1	95.8
1976	91.4	94.4	93.5	96.1	94.3	93.8	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.1	104.4	104.7	103.9	105.1	105.8	103.9
1979	114.5	111.7	112.1	110.9	112.7	114.1	110.5
1980 [1]	112.9	113.1	111.6	115.6	113.9	113.4	114.7
Average annual percent change:							
1958-80	4.7	2.6	2.4	2.9	2.7	2.7	2.9
1976-80	5.7	4.8	4.8	4.8	5.1	5.2	4.9

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 85. Pumps and pumping equipment (SIC 3561): Output per hour and related data, 1972-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 166. Pumps and pumping equipment (SIC 3561): Indexes of output per employee hour and output per employee, 1972-80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	90.8	89.9	92.5	91.9	90.8	94.0
1973	94.1	92.0	98.6	96.7	94.8	100.3
1974	93.6	90.6	99.6	93.5	89.7	101.1
1975	89.9	92.2	85.8	89.2	90.7	86.7
1976	92.7	94.6	89.6	93.2	94.8	90.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.1	101.2	101.0	99.9	99.3	100.9
1979	100.7	100.7	100.8	98.8	97.4	101.2
1980 [2]	97.2	98.9	93.9	95.7	96.3	94.5
Average annual percent change:						
1972-80	1.2	1.6	.5	.8	1.0	.3
1976-80	1.0	1.0	1.0	.4	.1	1.0

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 167. Pumps and pumping equipment (SIC 3561): Indexes of output, employee hours, and employees, 1972-80

(1977 = 100)

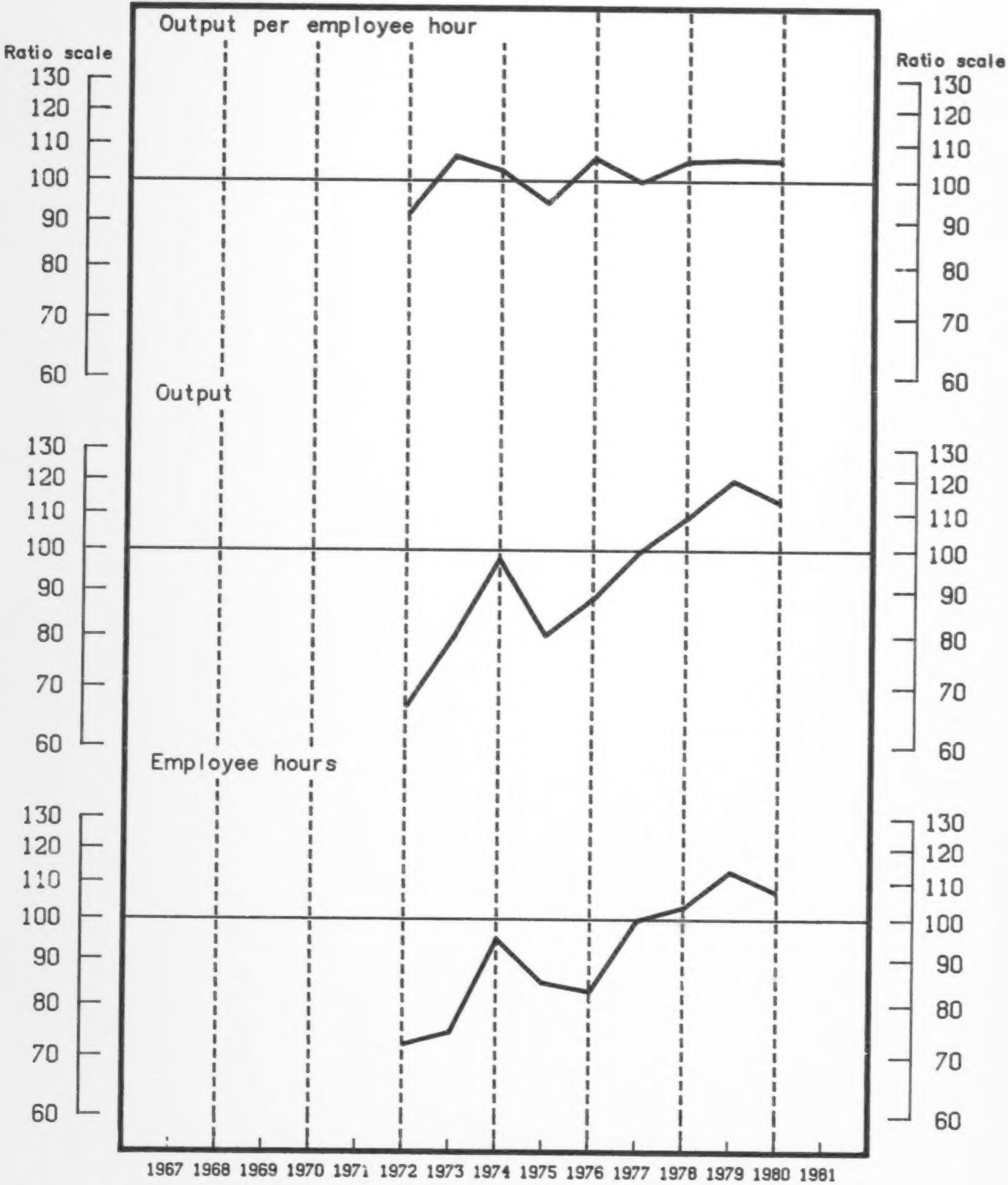
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	81.0	89.2	90.1	87.6	88.1	89.2	86.2
1973	91.7	97.4	99.7	93.0	94.8	96.7	91.4
1974	91.9	98.2	101.4	92.3	98.3	102.5	90.9
1975	90.4	100.6	98.0	105.4	101.4	99.7	104.3
1976	92.9	100.2	98.2	103.7	99.7	98.0	102.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.1	104.9	104.8	105.1	106.2	106.8	105.2
1979	111.6	110.8	110.8	110.7	113.0	114.6	110.3
1980 [1]	112.5	115.8	113.7	119.8	117.6	116.8	119.0
Average annual percent change:							
1972-80	3.9	2.6	2.2	3.4	3.1	2.8	3.6
1976-80	5.0	4.0	4.0	4.0	4.6	5.0	4.0

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 86. Air and gas compressors (SIC 3563): Output per hour and related data, 1972-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 168. Air and gas compressors (SIC 3563): Indexes of output per employee hour and output per employee, 1972–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1972	92.1	93.7	89.7	93.2	94.3	91.5
1973	106.8	107.4	106.1	104.2	101.7	108.4
1974	103.0	100.0	108.1	103.0	98.7	110.2
1975	94.7	92.3	98.8	94.4	91.0	99.9
1976	106.4	105.9	107.3	105.5	103.6	108.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.5	104.4	107.3	106.1	105.2	107.4
1979	106.0	104.7	108.1	107.2	106.4	108.5
1980 [2]	105.7	106.0	105.3	106.7	107.0	106.3
Average annual percent change:						
1972-80	1.1	1.0	1.2	1.2	1.4	.9
1976-80	.5	.5	.4	.9	1.3	.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 169. Air and gas compressors (SIC 3563): Indexes of output, employee hours, and employees, 1972–80

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1972	66.7	72.4	71.2	74.4	71.6	70.7	72.9
1973	79.8	74.7	74.3	75.2	76.6	78.5	73.6
1974	98.2	95.3	98.2	90.8	95.3	99.5	89.1
1975	80.5	85.0	87.2	81.5	85.3	88.5	80.6
1976	88.4	83.1	83.5	82.4	83.8	85.3	81.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.1	103.4	104.5	101.7	102.8	103.7	101.6
1979	120.3	113.5	114.9	111.3	112.2	113.1	110.9
1980 [1]	113.7	107.6	107.3	108.0	106.6	106.3	107.0
Average annual percent change:							
1972-80	6.5	5.4	5.5	5.3	5.2	5.0	5.6
1976-80	7.1	6.6	6.6	6.7	6.1	5.8	6.7

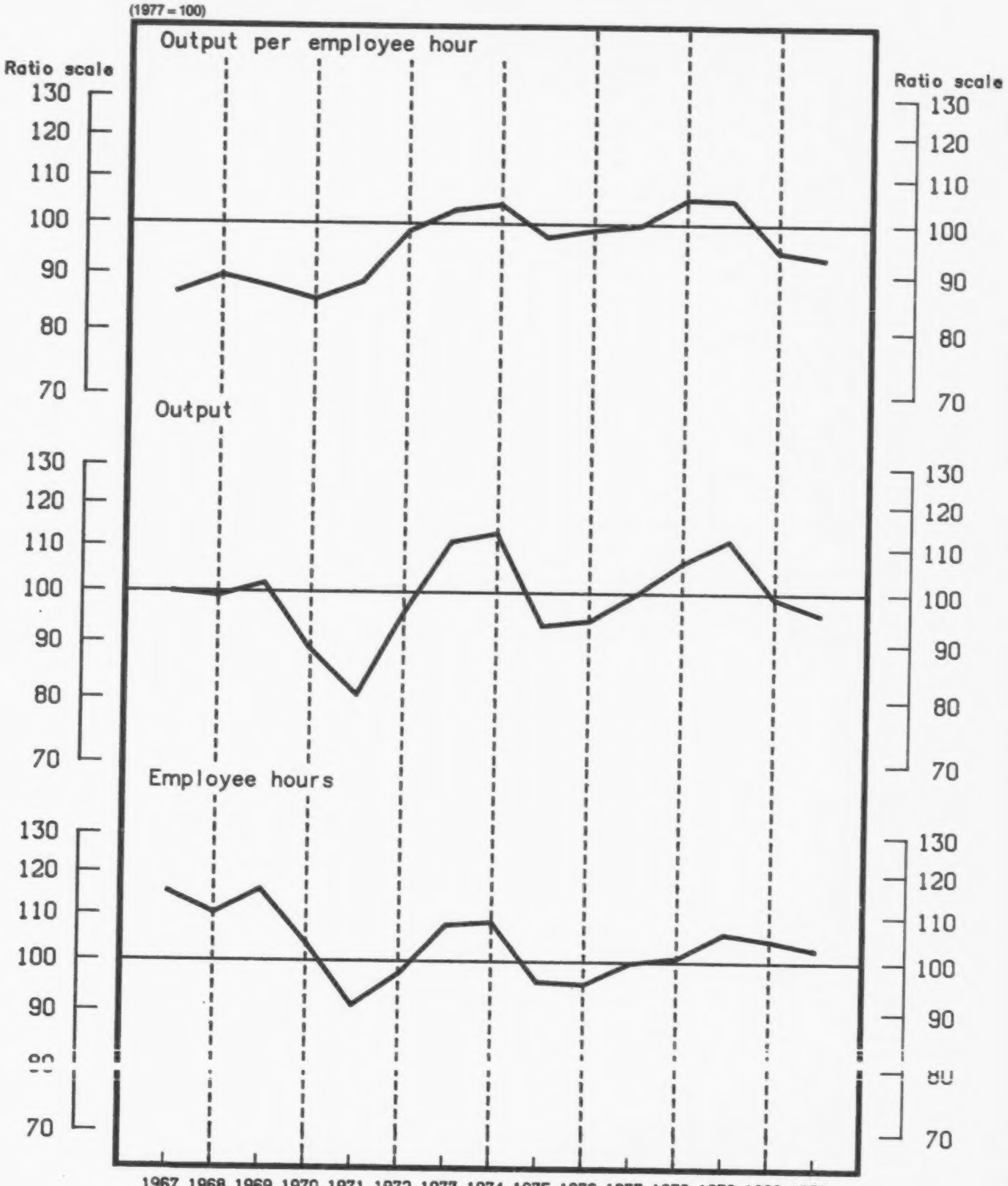
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 87. Ball and roller bearings (SIC 3562): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 170. Ball and roller bearings (SIC 3562): Indexes of output per employee hour and output per employee, 1958–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	52.7	51.9	55.6	50.3	48.7	56.2
1959	66.0	62.1	84.2	65.7	61.3	85.3
1960	64.7	62.4	73.9	60.9	57.7	74.3
1961	66.5	64.8	72.8	63.9	61.6	72.6
1962	72.4	69.6	83.9	71.6	68.6	83.0
1963	73.5	72.4	77.5	71.7	70.3	76.7
1964	79.3	76.9	88.5	78.6	76.1	87.6
1965	90.0	86.3	105.0	91.9	88.6	103.9
1966	90.1	86.3	106.3	93.4	90.4	105.1
1967	86.7	84.1	96.8	87.9	85.6	95.8
1968	89.8	89.2	91.5	90.7	89.9	93.5
1969	87.8	86.5	92.2	88.9	87.6	93.4
1970	85.5	86.3	82.4	81.2	80.7	82.6
1971	88.6	90.6	82.3	85.4	86.4	82.9
1972	98.6	97.4	102.8	100.2	99.0	104.1
1973	103.1	100.5	112.8	106.8	104.8	113.9
1974	104.3	102.0	113.4	104.4	101.7	114.2
1975	97.5	97.9	96.1	95.3	94.9	96.5
1976	99.0	98.7	99.7	98.5	98.0	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	105.1	107.7	104.2	103.1	107.7
1979	105.3	103.0	113.6	105.8	103.5	113.6
1980	94.7	92.6	102.4	94.4	92.2	102.4
1981 [2]	92.0	91.1	95.4	91.8	90.7	95.4
Average annual percent change:						
1958-81	2.3	2.4	1.7	2.4	2.6	1.7
1976-81	-1.5	-1.8	-.3	-1.4	-1.8	-.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 171. Ball and roller bearings (SIC 3562): Indexes of output, employee hours, and employees, 1958–81

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	39.9	75.7	76.9	71.8	79.4	82.0	71.0
1959	62.5	94.7	100.7	74.2	95.1	102.0	73.3
1960	57.3	88.6	91.8	77.5	94.1	99.3	77.1
1961	55.5	83.4	85.6	76.2	86.8	90.1	76.4
1962	66.5	91.9	95.6	79.3	92.9	97.0	80.1
1963	68.5	93.2	94.6	88.4	95.6	97.4	89.3
1964	78.2	98.6	101.7	88.4	99.5	102.7	89.3
1965	95.2	105.8	110.3	90.7	103.6	107.5	91.6
1966	106.8	118.5	123.8	100.5	114.3	118.1	101.6
1967	100.2	115.6	119.2	103.5	114.0	117.0	104.6
1968	99.3	110.6	111.3	108.5	109.5	110.5	106.2
1969	102.0	116.2	117.9	110.6	114.7	116.5	109.2
1970	88.9	104.0	103.0	107.9	109.5	110.1	107.6
1971	81.0	91.4	89.4	98.4	94.8	93.8	97.7
1972	96.2	97.6	98.8	93.6	96.0	97.2	92.4
1973	111.3	108.0	110.8	98.7	104.2	106.2	97.7
1974	[illegible]	[illegible]	[illegible]	100.0	108.6	111.5	99.3
1975	93.6	96.0	95.6	97.4	98.2	98.6	97.0
1976	94.6	95.6	95.8	94.9	96.0	96.5	94.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.8	101.1	101.6	99.2	102.5	103.6	99.2
1979	111.9	106.3	108.6	98.5	105.8	108.1	98.5
1980	99.2	104.8	107.1	96.9	105.1	107.6	96.9
1981 [1]	94.6	102.8	103.8	99.2	103.1	104.3	99.2
Average annual percent change:							
1958-81	2.9	.7	.5	1.2	.5	.4	1.2
1976-81	.1	1.6	1.9	.3	1.5	1.9	.4

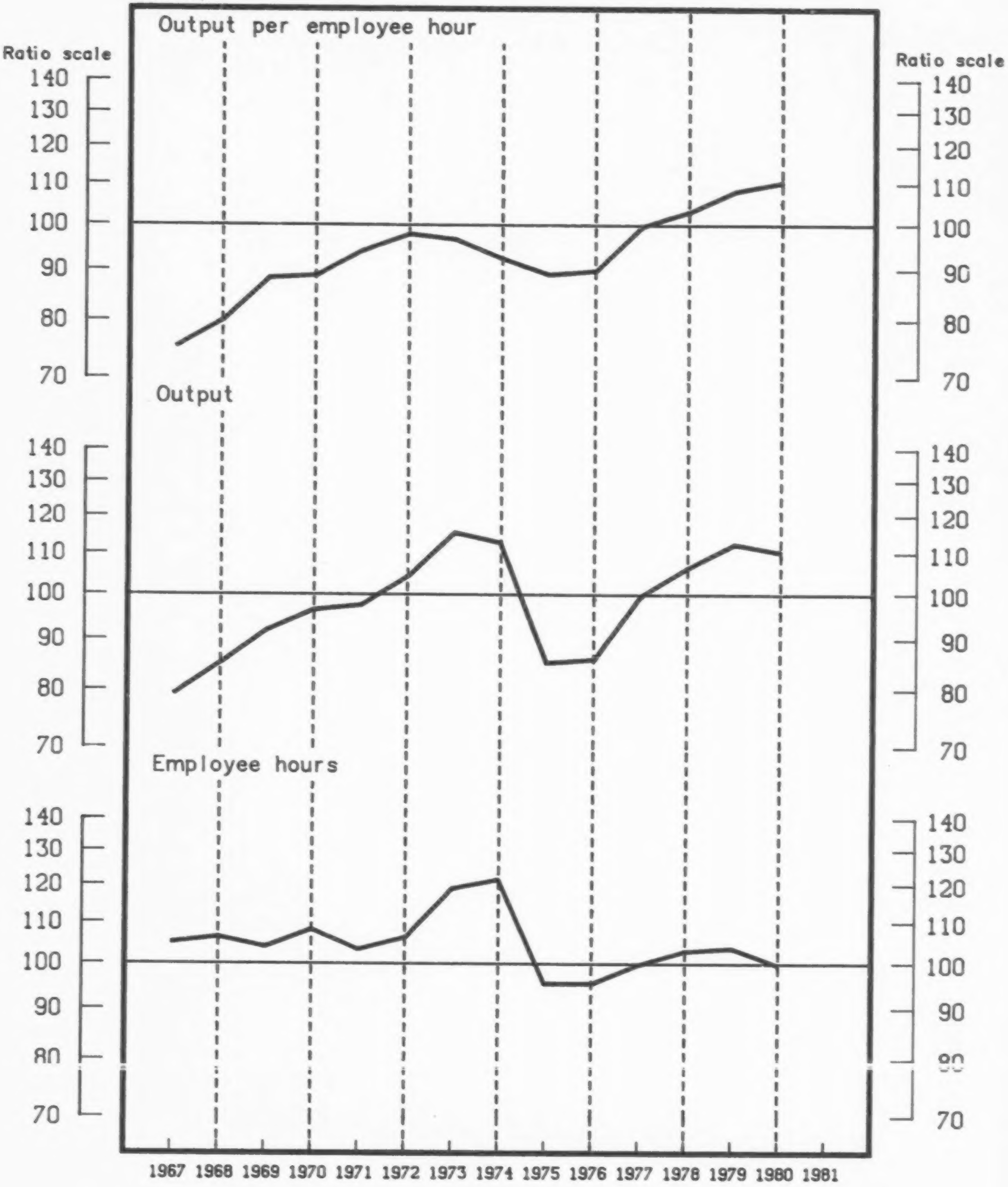
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 88. Transformers (SIC 3612): Output per hour and related data, 1967-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 172. Transformers (SIC 3612): Indexes of output per employee hour and output per employee, 1963-80

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1963	67.5	67.6	67.1	67.1	68.5	64.2
1964	73.3	71.9	77.0	73.7	73.7	73.7
1965	79.9	77.0	87.4	81.1	80.0	83.7
1966	75.8	72.9	83.7	77.9	76.9	80.1
1967	75.5	73.0	82.1	76.7	75.9	78.6
1968	80.2	77.5	87.1	80.6	79.1	84.0
1969	88.6	85.1	97.7	89.6	87.3	95.3
1970	89.1	84.9	100.6	89.6	86.1	99.2
1971	94.4	90.1	105.8	92.8	88.6	104.4
1972	98.1	94.1	109.1	97.2	93.6	107.2
1973	96.9	91.5	112.4	96.9	92.1	110.2
1974	92.7	88.5	104.2	91.9	88.3	101.7
1975	89.3	92.0	83.9	86.6	88.6	82.4
1976	90.1	92.0	85.9	89.1	91.0	85.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.4	102.1	106.7	103.8	102.6	106.7
1979	108.5	105.9	114.9	108.7	106.2	114.9
1980 [2]	110.7	111.4	109.3	110.2	110.6	109.3
Average annual percent change:						
1963-80	2.5	2.6	2.1	2.3	2.3	2.4
1976-80	5.1	4.5	6.4	5.2	4.6	6.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 173. Transformers (SIC 3612): Indexes of output, employee hours, and employees, 1963-80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1963	51.9	76.9	76.8	77.3	77.3	75.8	80.8
1964	59.0	80.5	82.1	76.6	80.1	80.0	80.1
1965	69.6	87.1	90.4	79.6	85.8	87.0	83.2
1966	74.1	97.7	101.7	88.5	95.1	96.3	92.5
1967	79.5	105.3	108.9	96.8	103.7	104.8	101.2
1968	85.5	106.6	110.3	98.2	106.1	108.1	101.8
1969	92.3	104.2	108.5	94.5	103.0	105.7	96.9
1970	96.7	108.5	113.9	96.1	107.9	112.3	97.5
1971	97.8	103.6	108.5	92.4	105.4	110.4	93.7
1972	104.5	106.5	111.1	95.8	107.5	111.7	97.5
1973	115.7	119.4	126.5	102.9	119.4	125.6	105.0
1974	113.0	121.9	127.7	108.4	122.9	128.0	111.1
1975	85.5	95.7	92.9	101.9	98.7	96.5	103.7
1976	86.2	95.7	93.7	100.3	96.7	94.7	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.7	103.2	104.5	100.0	102.8	104.0	100.0
1979	112.7	103.9	106.4	98.1	103.7	106.1	98.1
1980 [1]	110.6	99.9	99.3	101.2	100.4	100.0	101.2
Average annual percent change:							
1963-80	3.5	1.1	.9	1.5	1.2	1.2	1.2
1976-80	6.4	1.2	1.8	(2)	1.1	1.7	-.2

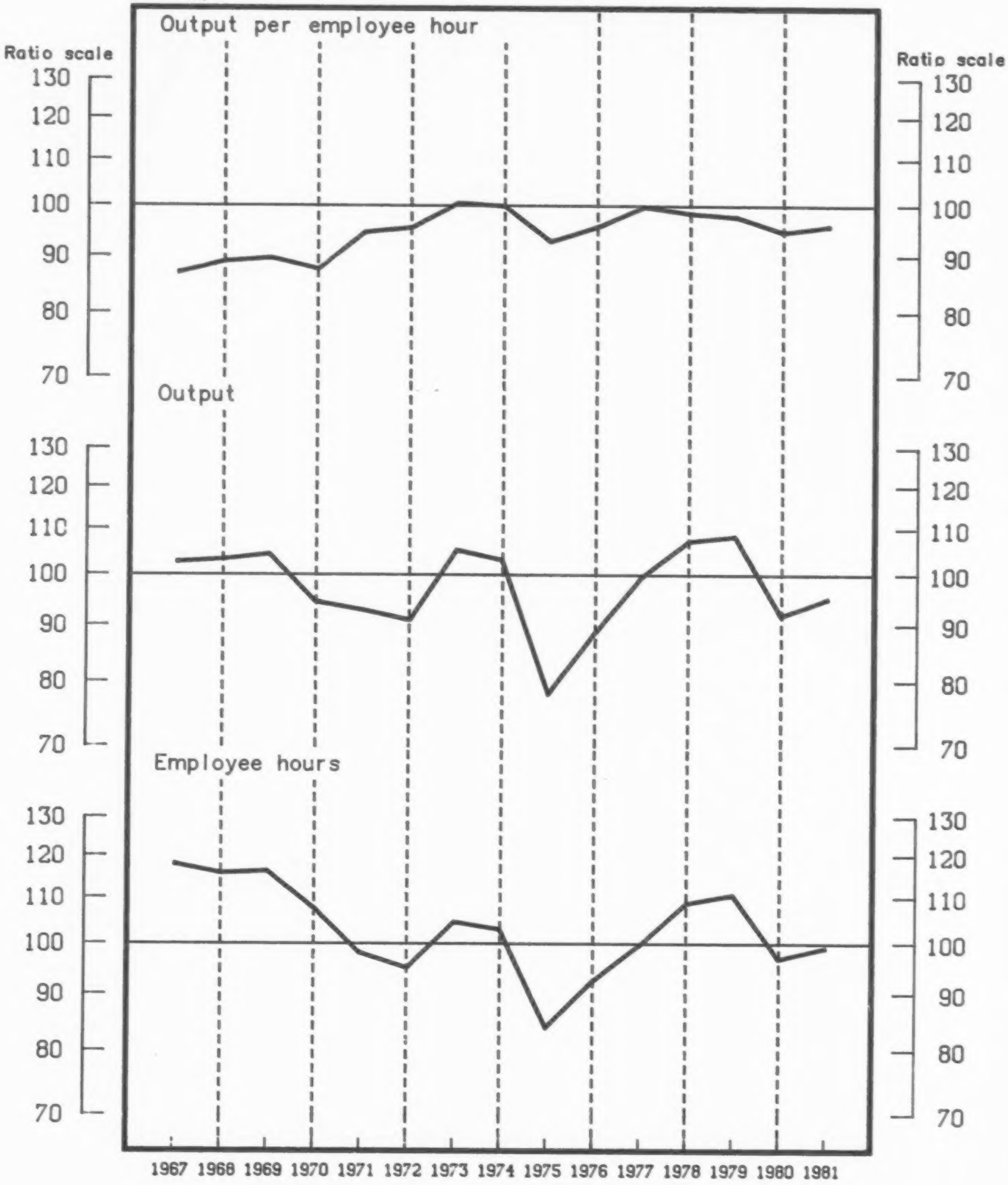
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 89. Motors and generators (SIC 3621): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 174. Motors and generators (SIC 3621): Indexes of output per employee hour and output per employee, 1954–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	49.9	51.9	43.9	49.7	51.7	44.0
1955	51.1	52.8	46.0	51.7	53.7	45.8
1956	54.1	55.6	49.7	54.3	55.9	49.6
1957	52.5	56.5	42.2	52.2	56.3	42.2
1958	52.1	57.2	39.9	52.0	57.4	39.7
1959	60.5	64.1	50.6	61.1	65.3	50.4
1960	62.0	66.5	50.3	61.4	66.2	49.8
1961	66.3	71.3	53.3	65.9	71.4	52.5
1962	73.7	77.4	63.4	74.3	79.0	62.2
1963	74.7	77.1	67.3	76.3	80.2	66.0
1964	82.5	85.2	74.3	84.8	89.1	73.3
1965	88.3	88.6	87.1	90.6	92.3	85.5
1966	90.3	88.3	97.6	91.1	89.9	95.4
1967	87.1	87.1	86.8	88.4	89.6	84.9
1968	89.2	89.8	87.3	91.7	93.0	87.6
1969	89.8	90.2	88.1	92.8	93.8	88.9
1970	87.8	89.5	82.2	88.3	89.8	84.0
1971	94.8	96.9	87.8	96.3	98.5	89.5
1972	95.7	95.5	96.7	97.9	97.9	98.1
1973	100.7	98.0	110.2	101.6	99.2	110.8
1974	100.1	98.8	104.6	99.9	98.7	104.1
1975	93.0	96.3	83.3	92.7	96.1	83.1
1976	95.9	94.6	100.6	95.1	93.4	101.0
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.6	97.8	101.3	98.2	97.3	101.2
1979	97.9	98.3	96.8	98.3	98.6	97.1
1980	94.9	98.3	84.7	94.9	98.2	85.4
1981 [2]	96.1	97.3	92.2	96.3	97.5	92.5
Average annual percent change:						
1954-81	2.7	2.5	3.5	2.7	2.4	3.5
1976-81	-.4	.3	-2.8	-.3	.5	-2.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 175. Motors and generators (SIC 3621): Indexes of output, employee hours, and employees, 1954–81

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	57.4	115.1	110.6	130.7	115.6	111.0	130.4
1955	60.4	118.1	114.3	131.2	116.9	112.4	131.8
1956	68.9	127.3	124.0	138.6	126.9	123.2	138.8
1957	63.2	120.3	111.9	149.6	121.1	112.3	149.8
1958	50.2	96.3	87.7	125.9	96.5	87.4	126.5
1959	62.8	103.8	98.0	124.1	102.8	96.1	124.7
1960	64.5	104.0	97.0	128.3	105.0	97.5	129.6
1961	65.2	98.3	91.5	122.3	99.0	91.3	124.2
1962	72.1	97.8	93.1	113.7	97.0	91.3	115.9
1963	74.2	99.3	96.2	110.3	97.2	92.5	112.4
1964	83.0	100.6	97.4	111.7	97.9	93.2	113.3
1965	95.3	107.9	107.6	109.4	105.2	103.3	111.5
1966	105.6	116.9	119.6	108.2	115.9	117.5	110.7
1967	102.9	118.2	118.2	118.5	116.4	114.9	121.2
1968	103.5	116.0	115.2	118.5	112.9	111.3	118.2
1969	104.6	116.5	116.0	118.7	112.9	111.5	117.7
1970	94.7	107.9	105.8	115.2	107.2	105.5	112.8
1971	93.1	98.2	96.1	106.0	96.7	94.5	104.0
1972	91.2	95.3	95.5	94.3	93.2	93.2	93.0
1973	105.5	104.8	107.7	95.7	103.8	106.4	95.2
1974	103.3	103.2	104.6	98.8	103.4	104.7	99.2
1975	78.4	84.3	81.4	94.1	84.6	81.6	94.3
1976	89.0	92.8	94.1	88.5	93.6	95.3	88.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.5	109.0	109.9	106.1	109.5	110.5	106.2
1979	108.6	110.9	110.5	112.2	110.5	110.1	111.9
1980	92.1	97.1	93.7	108.7	97.1	93.8	107.9
1981 [1]	95.4	99.3	98.0	103.5	99.1	97.8	103.1
Average annual percent change:							
1954-81	2.2	-.5	-.2	-1.2	-.5	-.2	-1.2
1976-81	.3	.8	([2])	3.2	.6	-.2	3.1

[1] Preliminary.

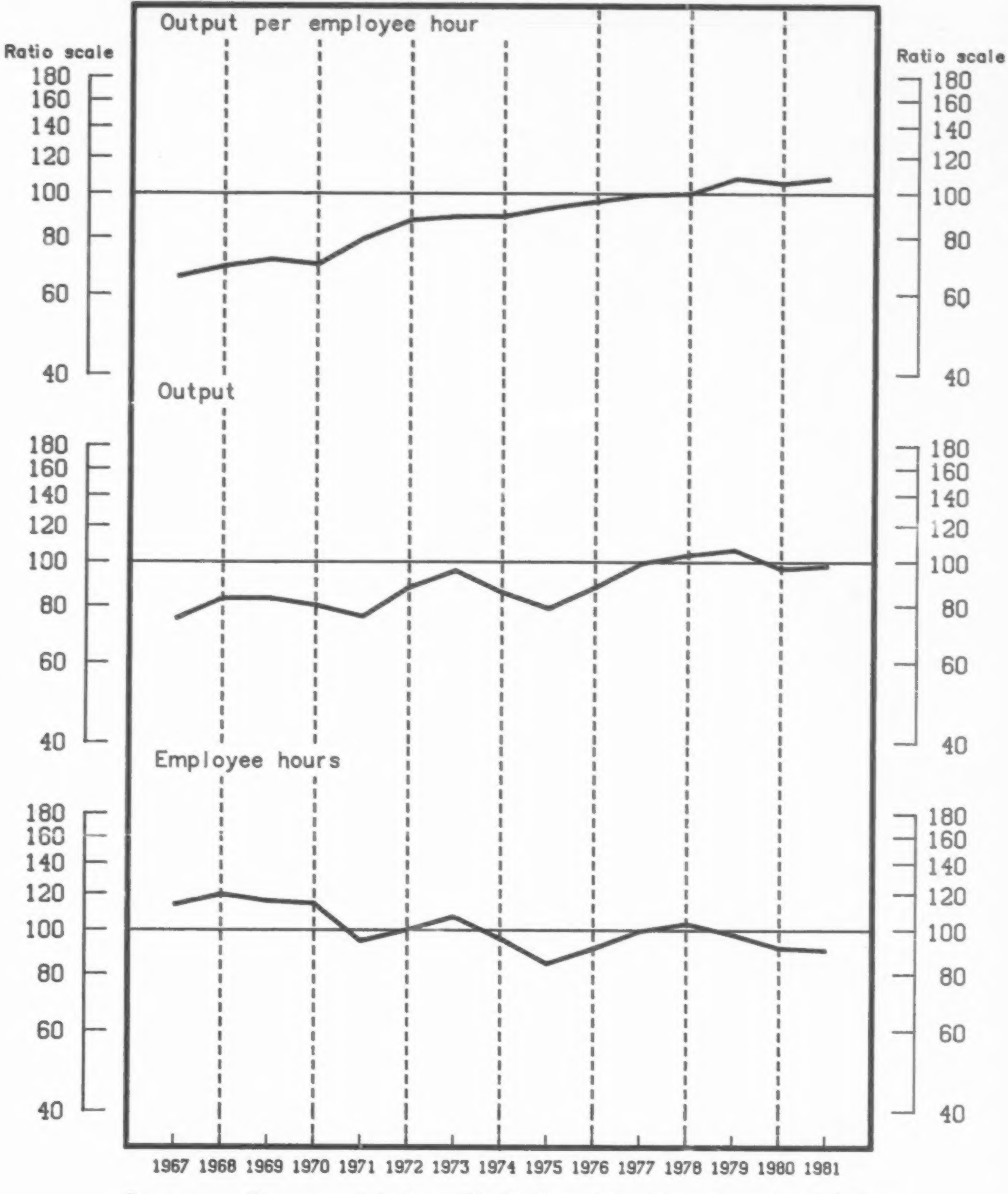
[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census. Employment and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 90. Major household appliances (SIC 3631, 3632, 3633, 3639): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 176. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	38.5	40.2	32.5	39.5	41.8	32.4
1959	42.0	42.8	38.9	42.9	44.2	38.7
1960	43.8	45.2	38.5	43.9	45.5	38.1
1961	46.6	48.4	40.3	47.6	50.1	39.6
1962	50.8	51.5	48.0	52.9	54.5	47.1
1963	57.9	57.7	59.1	59.6	60.0	58.0
1964	30.4	59.9	62.5	62.6	62.8	61.5
1965	62.2	61.9	63.4	65.0	65.7	62.2
1966	62.4	61.2	67.8	64.0	63.4	66.2
1967	66.0	65.7	67.7	66.5	66.7	66.2
1968	69.5	68.6	73.7	71.3	70.7	74.0
1969	71.9	71.9	71.8	72.6	72.8	72.4
1970	70.2	70.5	69.1	71.6	71.9	70.4
1971	80.1	80.7	77.5	81.7	82.4	79.2
1972	87.9	87.2	91.0	89.5	89.0	92.4
1973	89.5	88.5	94.1	90.7	89.8	94.7
1974	89.6	90.3	87.0	88.4	89.0	86.7
1975	93.6	96.0	84.6	91.7	93.6	84.5
1976	96.6	99.1	88.0	95.9	98.0	88.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.5	100.4	101.1	98.2	97.6	101.0
1979	108.7	109.1	107.5	107.9	107.9	108.1
1980	106.0	107.2	101.4	103.8	104.3	102.2
1981 [2]	108.7	108.3	109.9	106.5	105.4	110.5
Average annual percent change:						
1958-81	4.6	4.5	4.9	4.3	4.2	5.0
1976-81	2.4	2.1	3.5	2.1	1.7	3.6

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 177. Major household appliances (SIC 3631, 3632, 3633, 3639): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	40.6	105.5	100.9	124.9	102.7	97.2	125.4
1959	47.4	112.8	110.7	121.8	110.4	107.3	122.4
1960	47.1	107.6	104.1	122.4	107.4	103.5	123.6
1961	46.6	99.9	96.2	115.7	98.0	93.1	117.8
1962	52.3	103.0	101.6	109.0	98.8	95.9	111.0
1963	58.0	100.1	100.6	98.1	97.3	96.7	100.0
1964	64.4	106.6	107.6	103.0	102.9	102.5	104.7
1965	69.8	112.2	112.7	110.1	107.4	106.2	112.2
1966	73.5	117.8	120.1	108.4	114.9	115.9	111.0
1967	75.4	114.2	114.8	111.4	113.3	113.0	113.9
1968	83.6	120.3	121.9	113.4	117.3	118.3	112.9
1969	83.6	116.3	116.2	116.5	115.2	114.9	115.5
1970	80.6	114.8	114.4	116.7	112.6	112.1	114.5
1971	76.2	95.1	94.4	98.3	93.3	92.5	96.2
1972	88.4	100.6	101.4	97.1	98.8	99.3	95.7
1973	96.2	107.5	108.7	102.2	106.1	107.1	101.6
1974	86.2	96.2	95.5	99.1	97.5	96.8	99.4
1975	79.5	84.9	82.8	94.0	86.7	84.9	94.1
1976	88.5	91.6	89.3	100.6	92.3	90.3	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.2	103.7	103.8	103.1	106.1	106.8	103.2
1979	106.9	98.3	98.0	99.4	99.1	99.1	98.9
1980	97.3	91.8	90.8	96.0	93.7	93.3	95.2
1981 [1]	98.7	90.8	91.1	89.8	92.7	93.6	89.3
Average annual percent change:							
1958-81	3.8	-.7	-.6	-1.0	-.5	-.3	-1.1
1976-81	1.4	-1.0	-.7	-2.1	-.7	-.3	-2.1

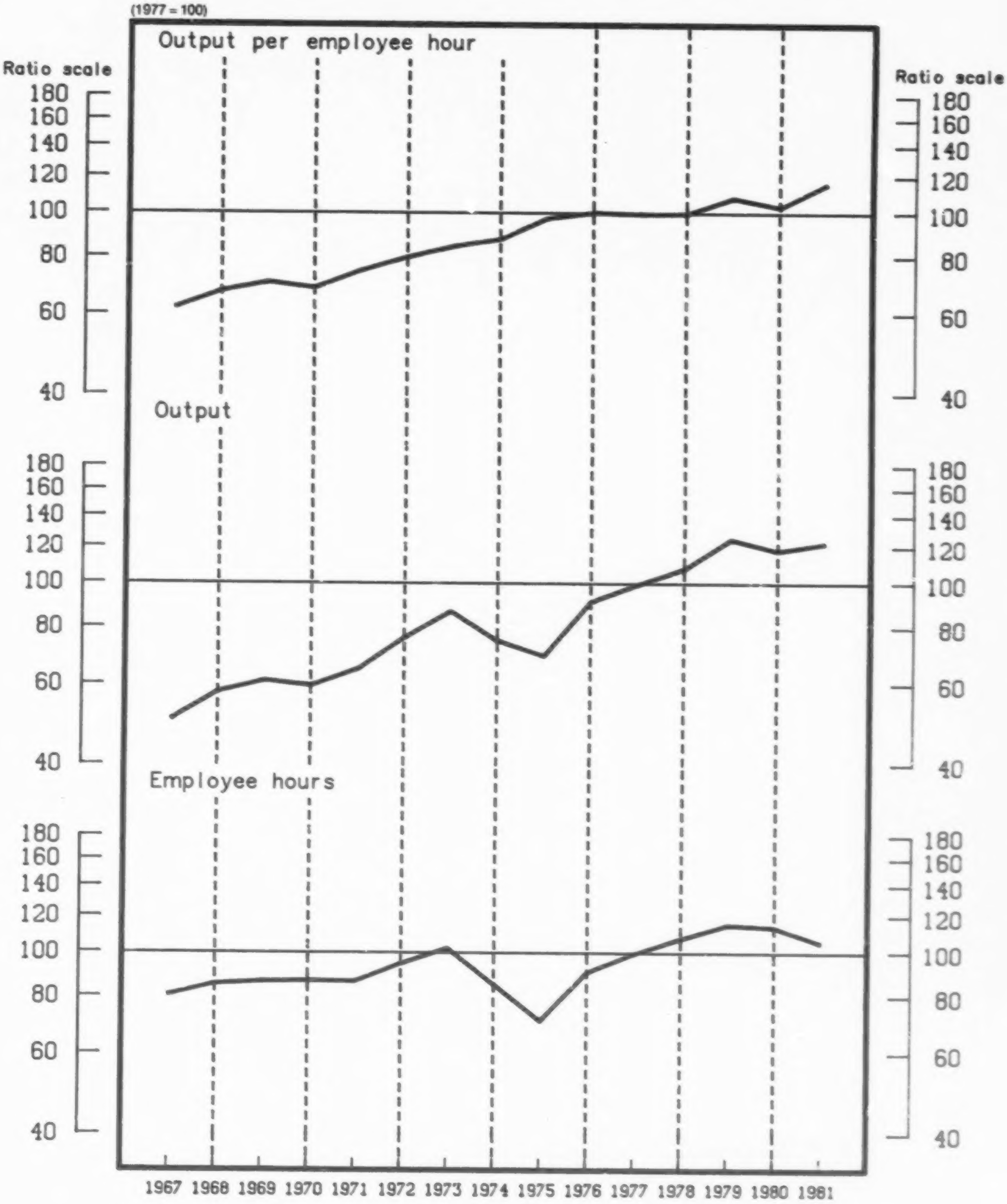
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 91. Household cooking equipment (SIC 3631): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 178. Household cooking equipment (SIC 3631): Indexes of output per employee hour and output per employee, 1958–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	49.5	47.7	55.9	51.0	49.5	56.1
1959	52.0	49.2	63.1	53.6	51.0	63.1
1960	50.8	50.9	50.2	51.1	51.4	49.9
1961	52.6	52.2	53.7	53.2	53.2	53.1
1962	54.5	54.1	55.6	54.0	53.8	54.8
1963	59.5	56.3	72.2	61.5	58.8	71.4
1964	60.1	57.9	68.3	60.9	58.9	68.1
1965	63.1	59.4	78.1	65.4	62.5	76.8
1966	62.4	58.6	78.3	64.3	61.1	76.8
1967	62.3	59.4	73.6	62.9	60.3	72.3
1968	67.7	63.9	82.4	69.8	66.4	83.1
1969	70.7	68.2	79.6	72.2	69.9	80.6
1970	68.7	66.4	76.8	70.1	67.8	78.6
1971	75.0	72.7	83.5	77.2	74.9	85.4
1972	80.3	76.4	96.0	83.3	79.3	98.2
1973	84.9	80.3	102.9	88.0	83.8	103.8
1974	87.9	87.2	89.7	86.2	85.2	89.5
1975	97.8	98.4	95.7	95.2	95.2	95.6
1976	100.7	101.3	98.4	100.9	101.3	99.7
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.3	98.4	106.5	98.3	95.8	106.6
1979	108.5	109.9	104.5	109.7	111.1	105.6
1980	103.7	103.2	105.2	107.2	107.3	106.8
1981 [2]	116.4	111.0	137.1	123.1	118.7	138.5
Average annual percent change:						
1958-81	3.9	4.0	3.4	3.8	3.9	3.5
1976-81	2.6	1.9	5.3	3.8	3.3	5.4

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 179. Household cooking equipment (SIC 3631): Indexes of output, employee hours, and employees, 1958–81

(1977 = 100)

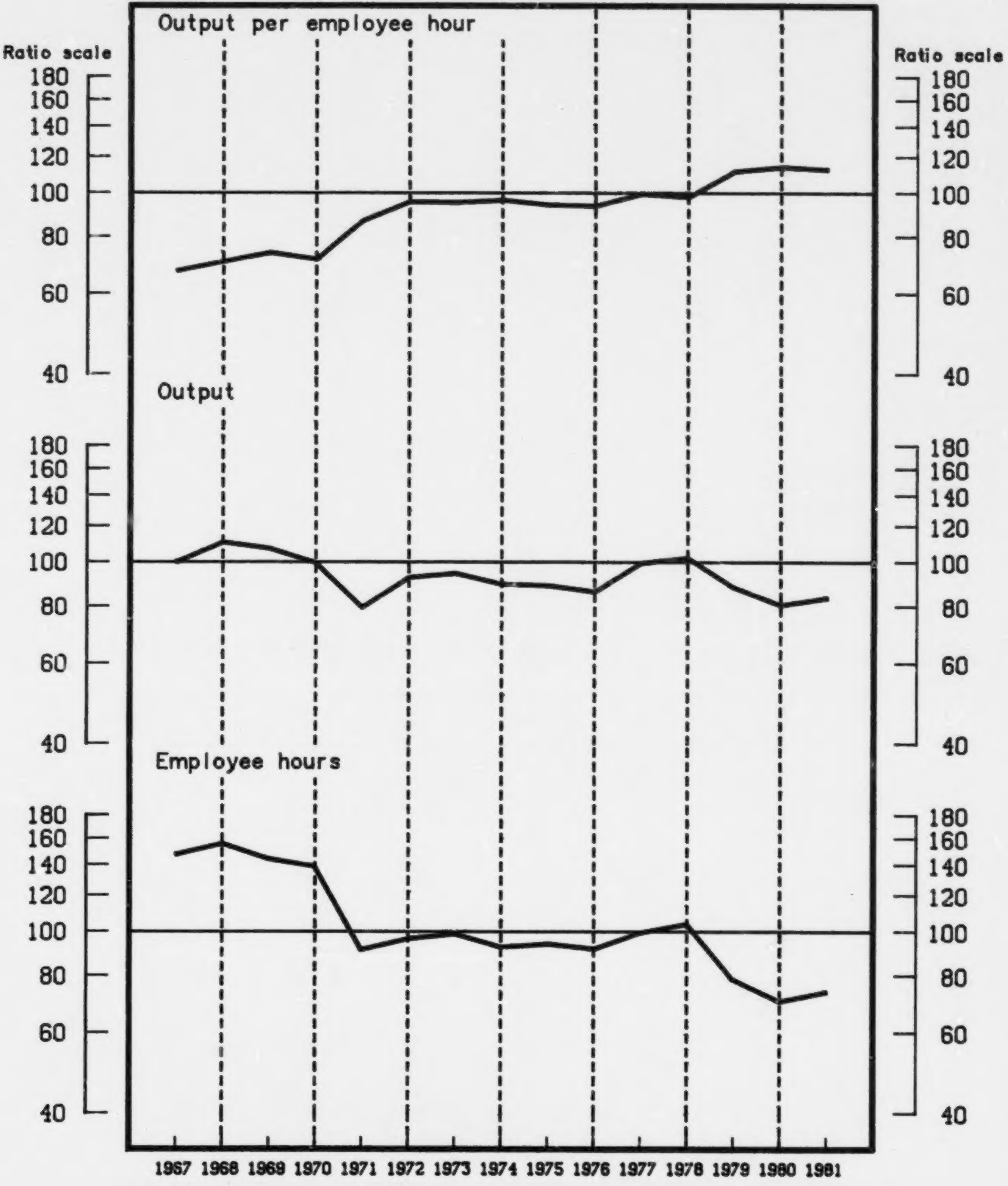
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	36.5	73.8	76.6	65.3	71.6	73.8	65.1
1959	40.1	77.1	81.5	63.6	74.8	78.6	63.5
1960	40.4	79.6	79.3	80.5	79.1	78.6	80.9
1961	39.6	75.3	75.8	73.7	74.4	74.4	74.6
1962	40.0	73.4	73.9	72.0	74.1	74.4	73.0
1963	46.5	78.1	82.6	64.4	75.6	79.1	65.1
1964	47.5	79.0	82.1	69.5	78.0	80.6	69.8
1965	53.6	84.9	90.2	68.6	81.9	85.8	69.8
1966	52.4	84.0	89.4	66.9	81.5	85.8	68.2
1967	50.5	81.0	85.0	68.6	80.3	83.8	69.8
1968	58.0	85.7	90.7	70.4	83.1	87.4	69.8
1969	61.4	86.8	90.0	77.1	85.1	87.9	76.2
1970	59.9	87.2	90.2	78.0	85.5	88.4	76.2
1971	65.1	86.8	89.6	78.0	84.3	86.9	76.2
1972	76.4	95.1	100.0	79.6	91.7	96.3	77.8
1973	87.3	102.8	108.7	84.8	99.2	104.2	84.1
1974	75.3	85.7	86.4	83.9	87.4	88.4	84.1
1975	69.8	71.4	70.9	72.9	73.3	73.3	73.0
1976	91.7	91.1	90.5	93.2	90.9	90.5	92.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.3	108.0	110.1	101.7	110.2	113.1	101.6
1979	125.7	115.8	114.4	120.3	114.6	113.1	119.0
1980	118.6	114.4	114.9	112.7	110.6	110.5	111.1
1981 [1]	123.1	105.8	110.9	89.8	100.0	103.7	88.9
Average annual percent change:							
1958-81	5.6	1.7	1.5	2.1	1.7	1.6	2.0
1976-81	6.3	3.6	4.3	1.0	2.4	2.8	.9

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 92. Household refrigerators and freezers (SIC 3632): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 180. Household refrigerators and freezers (SIC 3632): Indexes of output per employee hour and output per employee, 1958-81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	33.9	35.0	29.3	34.8	36.3	29.2
1959	37.3	37.1	38.1	38.4	38.6	37.9
1960	41.0	41.3	39.2	40.8	41.2	38.8
1961	43.8	44.3	40.9	44.7	45.8	40.1
1962	47.2	46.7	50.2	50.9	51.3	49.2
1963	55.5	55.9	53.3	57.1	58.3	52.2
1964	59.5	59.2	60.7	62.0	62.6	59.5
1965	61.4	61.3	61.7	64.6	65.6	60.5
1966	62.1	61.1	67.5	63.4	63.0	65.8
1967	67.7	67.6	68.0	67.9	68.2	66.2
1968	70.9	70.6	72.2	72.5	72.6	72.4
1969	74.1	74.8	71.1	75.3	76.1	71.6
1970	71.7	72.4	68.6	73.4	74.2	69.8
1971	87.2	87.7	85.3	88.1	88.3	87.2
1972	96.0	95.1	100.1	97.6	97.0	101.4
1973	95.6	95.9	94.1	97.0	97.5	94.9
1974	96.8	97.9	90.7	98.4	100.4	89.9
1975	94.5	97.9	80.1	93.0	96.3	79.9
1976	94.0	97.6	79.4	92.4	95.5	79.9
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.4	97.9	100.9	96.3	95.4	101.0
1979	112.2	110.2	123.4	109.7	107.1	123.4
1980	114.6	114.6	114.4	106.6	104.9	115.7
1981 [2]	113.2	112.0	120.2	105.1	102.6	120.0
Average annual percent change:						
1958-81	5.2	5.2	5.3	4.8	4.7	5.4
1976-81	4.3	3.5	8.0	2.8	1.8	7.9

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 181. Household refrigerators and freezers (SIC 3632): Indexes of output, employee hours, and employees, 1958-81

(1977=100)

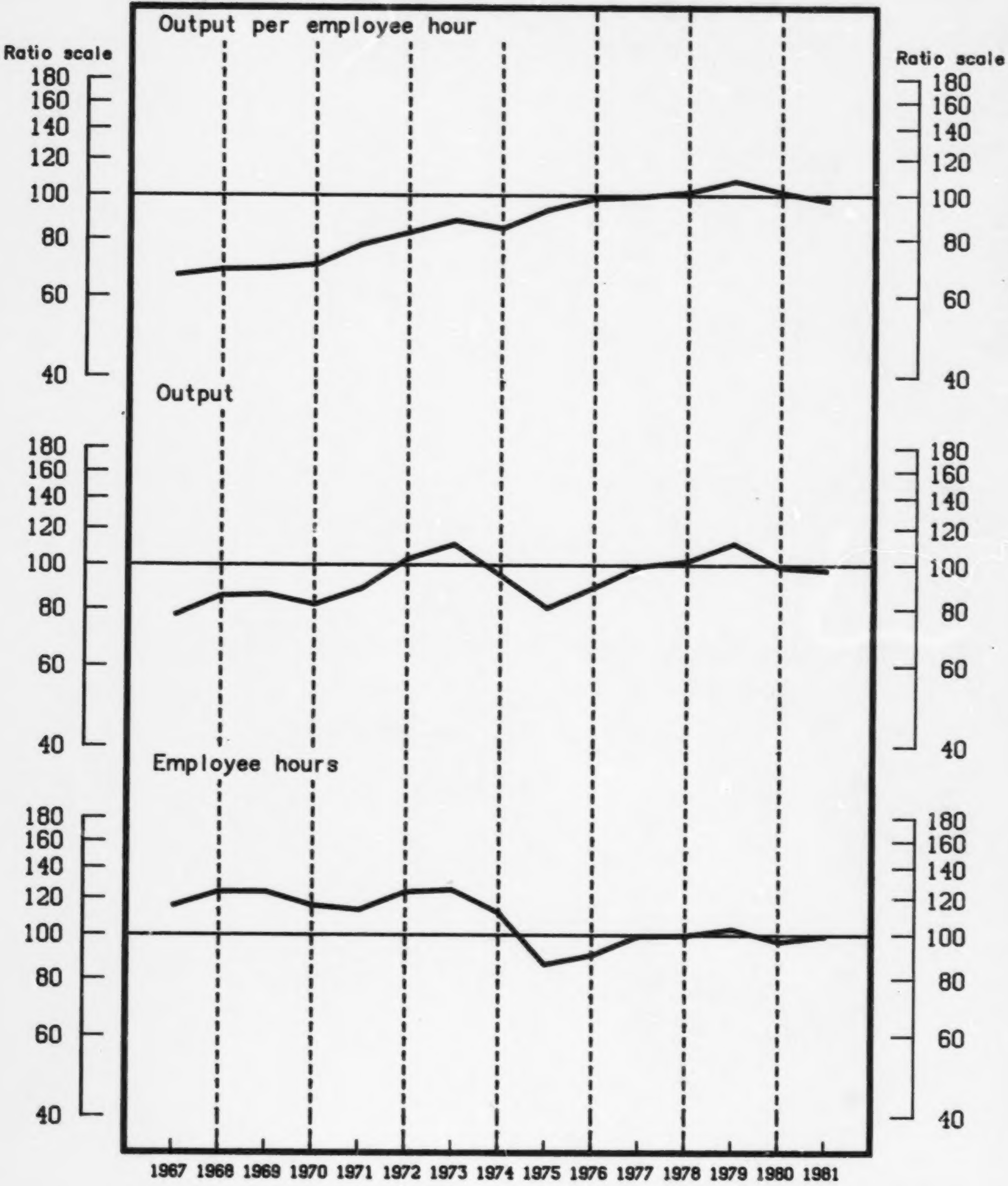
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	40.4	119.0	115.3	138.0	116.0	111.3	138.4
1959	50.5	135.5	136.1	132.6	131.4	130.8	133.4
1960	53.7	131.0	130.0	137.1	131.7	130.2	138.4
1961	52.1	119.0	117.5	127.3	116.6	113.7	130.0
1962	59.9	126.9	128.4	119.4	117.6	116.8	121.7
1963	68.8	124.0	123.0	129.1	120.4	118.1	131.7
1964	79.4	133.5	134.2	130.9	128.0	126.8	133.4
1965	87.8	143.0	143.2	142.4	135.9	133.9	145.1
1966	95.5	153.7	156.2	141.5	150.7	151.7	145.1
1967	100.5	148.4	148.6	147.7	148.1	147.3	151.7
1968	111.1	156.7	157.4	153.9	153.2	153.0	153.4
1969	107.5	145.0	143.8	151.3	142.8	141.2	150.1
1970	100.1	139.6	138.3	145.9	136.4	134.9	143.4
1971	80.0	91.7	91.2	93.8	90.8	90.6	91.7
1972	93.0	96.9	97.8	92.9	95.3	95.9	91.7
1973	94.9	99.3	99.0	100.9	97.8	97.3	100.0
1974	89.9	92.9	91.8	99.1	91.4	89.5	100.0
1975	89.2	94.4	91.1	111.4	95.9	92.6	111.7
1976	86.5	92.0	88.6	108.9	93.6	90.6	108.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.7	104.4	104.9	101.8	106.7	107.7	101.7
1979	88.5	78.9	80.3	71.7	80.7	82.6	71.7
1980	81.0	70.7	70.7	70.8	76.0	77.2	70.0
1981 [1]	84.0	74.2	75.0	69.9	79.9	81.9	70.0
Average annual percent change:							
1958-81	2.6	-2.5	-2.5	-2.6	-2.2	-2.0	-2.7
1976-81	-2.6	-6.6	-5.9	-9.8	-5.3	-4.3	-9.8

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 93. Household laundry equipment (SIC 3633): Output per hour and related data, 1967-81
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 182. Household laundry equipment (SIC 3633): Indexes of output per employee hour and output per employee, 1958–81

(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	39.8	43.8	28.4	42.0	47.1	28.2
1959	43.3	46.9	32.4	44.8	49.0	32.2
1960	42.5	45.7	30.3	43.4	48.1	30.0
1961	46.4	51.5	32.3	48.1	54.3	31.6
1962	51.6	56.2	37.9	53.8	59.6	37.2
1963	61.3	61.5	60.3	63.9	65.2	58.6
1964	60.8	60.5	61.9	64.2	65.0	60.6
1965	61.5	64.4	51.1	65.1	69.6	50.2
1966	63.5	64.2	60.4	66.1	68.0	58.6
1967	67.1	67.9	63.5	68.1	69.6	61.9
1968	69.0	68.7	70.1	71.0	71.2	70.0
1969	69.4	69.6	68.0	69.4	69.5	68.8
1970	70.7	72.0	65.4	72.3	73.5	67.0
1971	78.3	79.2	74.6	82.1	83.4	76.1
1972	83.2	82.6	85.6	85.3	84.9	88.3
1973	88.5	87.7	92.1	90.6	90.0	92.9
1974	85.0	86.2	79.9	82.1	82.6	79.6
1975	93.6	95.3	86.4	91.0	92.1	86.0
1976	99.0	100.6	92.8	98.6	100.0	92.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.3	102.3	102.6	101.6	101.3	102.6
1979	108.2	106.7	115.6	108.2	106.8	115.4
1980	102.2	102.8	99.3	100.3	100.6	99.3
1981 [2]	97.8	98.5	95.0	94.4	94.2	95.0
Average annual percent change:						
1958-81	4.3	3.9	5.8	4.0	3.5	5.9
1976-81	.2	.1	.6	-.4	-.6	.7

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 183. Household laundry equipment (SIC 3633): Indexes of output, employee hours, and employees, 1958–81

(1977=100)

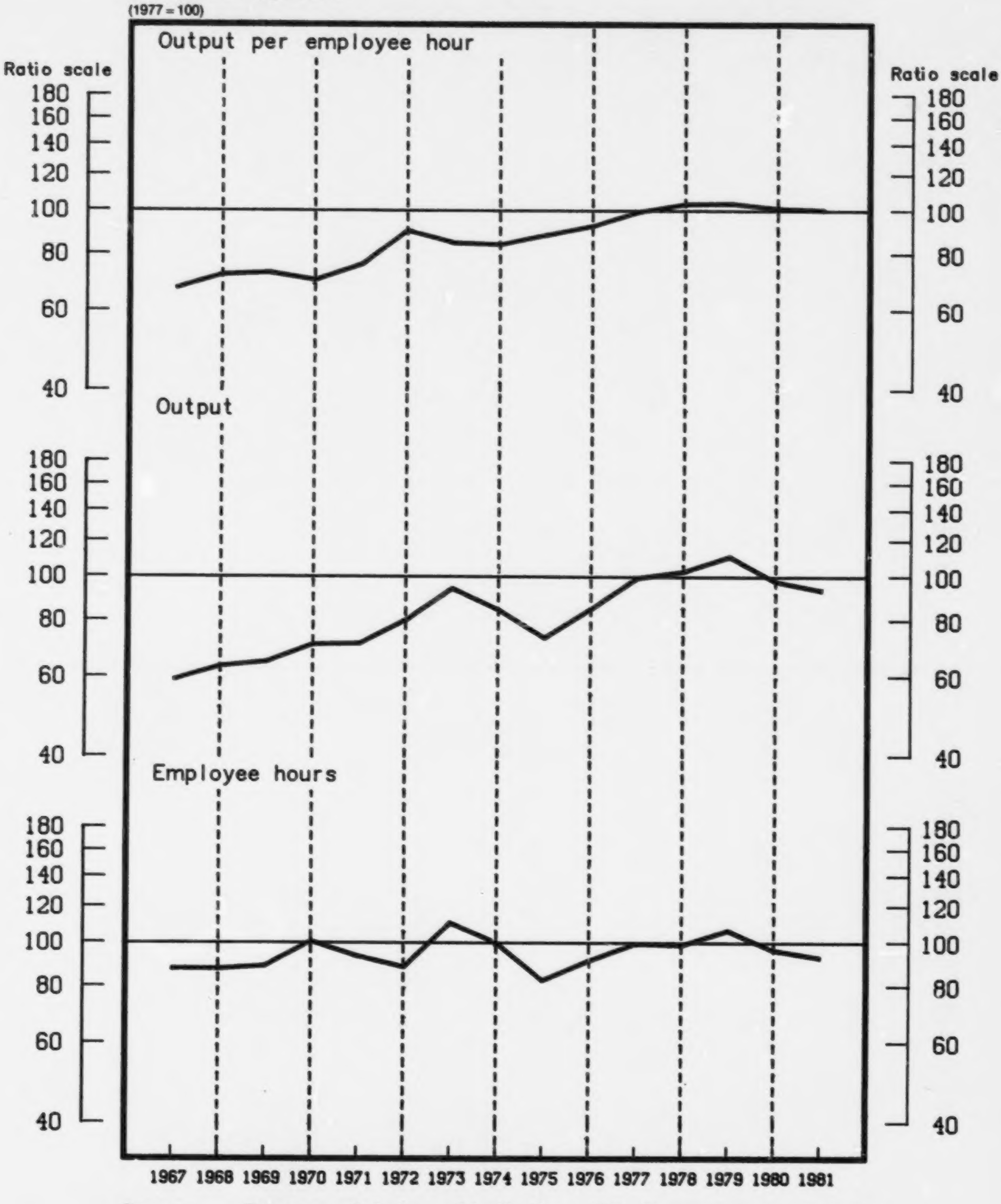
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	53.3	133.9	121.8	187.9	126.8	113.2	188.7
1959	59.8	138.1	127.6	184.8	133.5	122.1	185.8
1960	52.3	123.1	111.9	172.6	120.6	106.8	174.3
1961	53.3	114.8	103.4	165.2	110.6	98.1	168.7
1962	58.5	113.4	104.1	154.5	106.7	98.1	157.2
1963	60.3	98.4	98.1	100.0	94.3	92.5	102.9
1964	67.5	111.1	111.6	109.1	105.1	103.8	111.4
1965	70.4	114.5	109.3	137.8	108.2	101.2	140.1
1966	78.7	123.9	122.5	130.3	119.1	115.8	134.3
1967	77.9	116.1	114.7	122.7	114.4	112.0	125.8
1968	86.0	124.7	125.2	122.7	121.2	120.8	122.9
1969	86.5	124.7	124.2	127.2	124.7	124.5	125.8
1970	82.3	116.4	114.3	125.8	113.8	112.0	122.9
1971	89.2	113.9	112.6	119.6	108.7	106.9	117.2
1972	103.7	124.7	125.6	121.2	121.6	122.1	120.1
1973	111.6	126.1	127.3	121.2	123.2	124.0	120.1
1974	95.6	112.5	110.9	119.6	116.5	115.8	120.1
1975	81.1	86.6	85.1	93.9	89.1	88.1	94.3
1976	89.9	90.8	89.4	96.9	91.2	89.9	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	100.3	100.3	100.0	101.0	101.3	100.0
1979	112.1	103.6	105.1	97.0	103.6	105.0	97.1
1980	99.3	97.2	96.6	100.0	99.0	98.7	100.0
1981 [1]	97.8	100.0	99.3	103.0	103.6	103.8	102.9
Average annual percent change:							
1958-81	3.2	-1.1	-.7	-2.4	-.8	-.3	-2.5
1976-81	1.4	1.2	1.3	.6	1.8	2.1	.7

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 94. Household appliances, not elsewhere classified (SIC 3639): Output per hour and related data, 1967-81
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 184. Household appliances, not elsewhere classified (SIC 3639): Indexes of output per employee hour and output per employee, 1958–81
(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	43.4	50.6	26.4	43.3	51.1	26.0
1959	49.1	57.6	29.2	47.5	55.8	28.7
1960	51.6	57.8	34.6	51.7	58.6	33.9
1961	54.6	62.0	35.3	55.4	64.0	34.6
1962	60.9	65.9	45.0	61.3	67.2	43.9
1963	63.8	67.8	50.1	64.5	69.6	46.6
1964	69.0	73.4	54.2	69.8	75.3	52.8
1965	70.4	73.1	60.2	71.4	74.9	59.1
1966	65.6	68.4	55.3	67.3	71.5	53.5
1967	67.6	72.4	51.9	69.6	76.1	50.7
1968	72.5	76.5	58.4	74.2	79.1	57.8
1969	73.1	78.6	55.2	73.7	79.5	55.6
1970	70.4	74.8	55.2	70.8	75.3	55.8
1971	76.2	82.3	57.0	75.9	81.7	57.6
1972	90.8	96.8	70.4	90.4	96.4	70.8
1973	85.2	86.7	78.9	82.6	83.6	78.5
1974	84.5	85.3	80.6	81.9	82.4	78.5
1975	88.8	93.4	72.4	87.0	91.6	71.3
1976	93.0	95.7	82.4	92.5	95.1	82.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.0	107.2	91.7	98.9	101.0	90.8
1979	104.3	105.6	98.9	101.2	101.9	98.0
1980	101.6	104.0	91.5	98.2	99.8	91.9
1981 [2]	100.8	105.6	83.2	96.9	100.9	82.4
Average annual percent change:						
1958-81	3.5	3.0	5.1	3.3	2.7	5.2
1976-81	1.3	1.7	-.4	.6	.9	-.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 185. Household appliances, not elsewhere classified (SIC 3639): Indexes of output, employee hours, and employees, 1958–81
(1977 = 100)

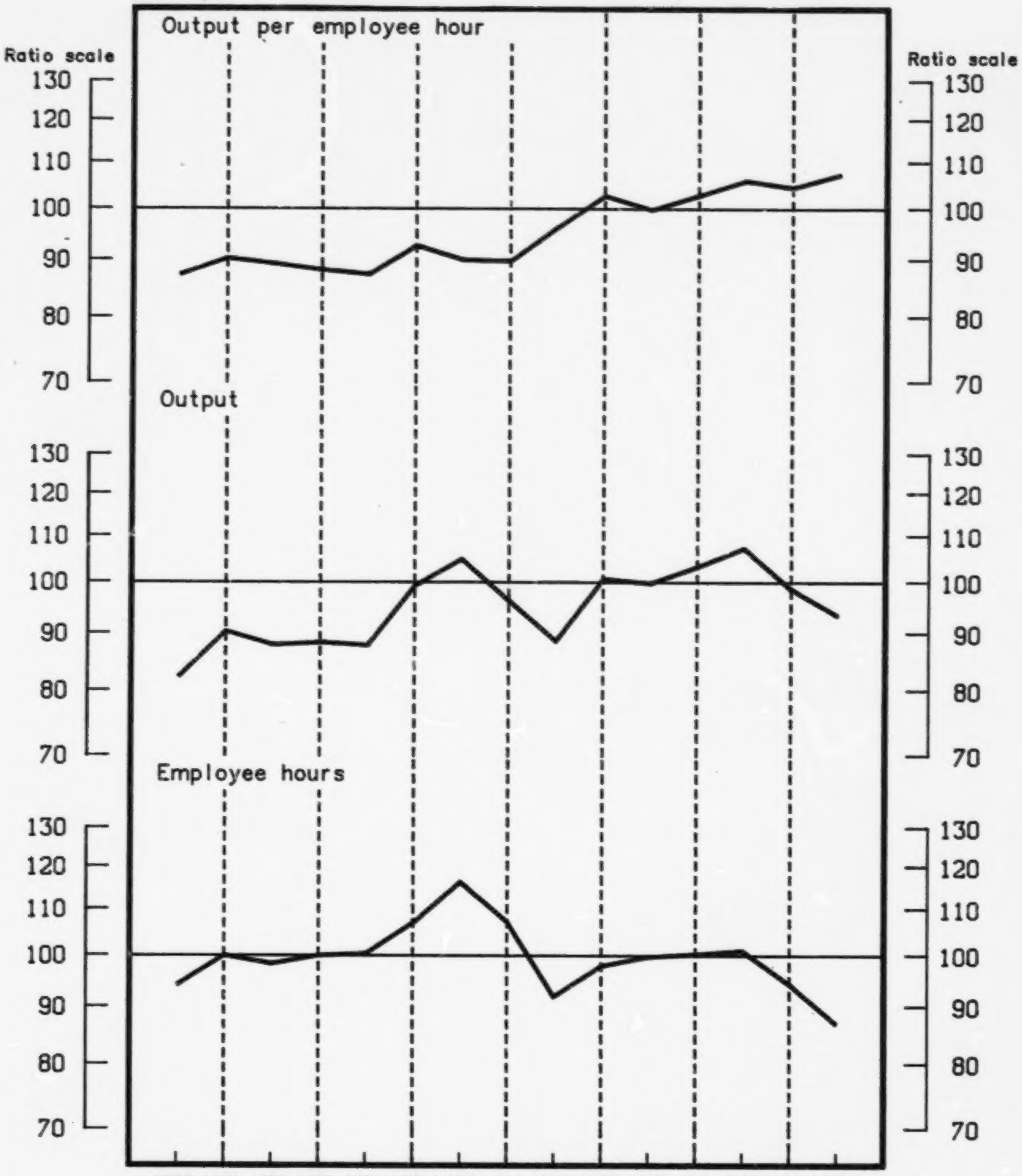
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	40.3	92.8	79.7	152.7	93.0	78.8	155.2
1959	43.6	88.8	75.7	149.1	91.7	78.1	151.7
1960	42.1	81.6	72.9	121.8	81.5	71.9	124.2
1961	43.0	78.7	69.4	121.8	77.6	67.2	124.2
1962	51.5	84.6	78.1	114.5	84.0	76.6	117.2
1963	53.8	84.3	79.3	107.3	83.4	77.3	110.3
1964	58.2	84.3	79.3	107.3	83.4	77.3	110.3
1965	59.1	83.9	80.9	98.2	82.8	78.9	100.0
1966	55.3	84.3	80.9	100.0	82.2	77.3	103.4
1967	59.4	87.9	82.1	114.5	85.3	78.1	117.2
1968	63.7	87.9	83.3	109.0	85.9	80.5	110.3
1969	65.2	89.2	82.9	118.2	88.5	82.0	117.2
1970	71.2	101.2	95.2	129.1	100.6	94.5	127.5
1971	71.5	93.8	86.9	125.4	94.2	87.5	124.2
1972	80.6	88.8	83.3	114.5	89.2	83.6	113.8
1973	94.7	111.1	109.2	120.0	114.6	113.3	120.6
1974	85.0	100.6	99.7	105.5	103.8	103.1	106.9
1975	73.7	83.0	78.9	101.8	84.7	80.5	103.4
1976	85.4	91.8	89.2	103.7	92.3	89.8	103.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.3	99.3	98.4	112.7	104.5	102.3	113.8
1979	111.5	106.9	105.6	112.7	110.2	109.4	113.8
1980	98.2	96.7	94.4	107.3	100.0	98.4	106.9
1981 [1]	93.8	93.1	88.8	112.7	96.8	93.0	113.8
Average annual percent change:							
1958-81	4.3	.8	1.3	-.7	1.0	1.6	-.8
1976-81	1.4	.1	-.3	1.8	.8	.6	2.0

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 95. Electric lamps (SIC 3641): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 186. Electric lamps (SIC 3641): Indexes of output per employee hour and output per employee, 1954–81
(1977=100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	62.5	62.9	60.1	60.2	60.3	59.1
1955	66.6	66.5	67.0	65.6	65.6	66.0
1956	69.4	68.7	75.8	69.3	68.6	74.6
1957	66.8	67.4	62.3	65.3	66.0	61.3
1958	68.9	70.9	57.8	66.9	68.6	56.9
1959	73.7	74.4	68.8	73.9	74.8	67.7
1960	75.5	76.1	71.8	73.1	73.5	70.2
1961	74.5	75.3	68.9	72.9	73.8	67.1
1962	79.2	79.6	76.1	78.3	79.0	73.7
1963	80.8	80.8	82.0	80.1	80.2	79.5
1964	83.4	83.4	84.0	82.4	82.6	81.3
1965	88.7	88.0	94.4	88.7	88.4	91.3
1966	89.3	88.0	100.1	89.4	88.3	96.9
1967	87.5	86.8	93.1	85.2	84.5	90.2
1968	90.4	89.6	97.0	89.0	88.2	94.6
1969	89.4	89.2	91.2	87.1	86.8	90.0
1970	88.3	87.3	96.9	87.5	86.4	96.7
1971	87.5	86.9	92.1	85.8	84.9	91.9
1972	92.8	91.6	101.9	92.5	91.2	101.6
1973	90.1	88.5	103.5	89.9	88.3	102.9
1974	89.9	89.5	91.7	87.7	87.3	90.8
1975	96.4	96.9	93.5	94.7	94.9	92.8
1976	102.9	102.7	103.5	103.7	103.7	103.1
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.0	102.6	105.7	104.3	104.1	105.7
1979	106.2	105.1	114.9	106.6	105.6	114.9
1980	104.7	104.2	108.1	103.2	102.6	108.1
1981 [2]	107.5	107.8	104.7	107.2	107.6	104.7
Average annual percent change:						
1954-81	1.8	1.8	2.2	1.9	1.9	2.3
1976-81	1.1	1.1	1.1	.8	.8	1.1

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 187. Electric lamps (SIC 3641): Indexes of output, employee hours, and employees, 1954–81
(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	41.5	66.4	66.0	69.1	68.9	68.8	70.2
1955	46.3	69.5	69.6	69.1	70.6	70.6	70.2
1956	52.4	75.5	76.3	69.1	75.6	76.4	70.2
1957	52.2	78.1	77.4	83.8	79.9	79.1	85.1
1958	47.2	68.5	66.6	81.7	70.6	68.8	83.0
1959	56.2	76.3	75.5	81.7	76.1	75.1	83.0
1960	56.8	75.2	74.6	79.1	77.7	77.3	80.9
1961	52.8	70.9	70.1	76.6	72.4	71.5	78.7
1962	59.6	75.3	74.9	78.3	76.1	75.4	80.9
1963	62.6	77.5	77.5	78.3	78.2	78.1	78.7
1964	65.8	78.9	78.9	78.3	79.9	79.7	80.9
1965	73.9	83.3	84.0	78.3	83.3	83.6	80.9
1966	82.5	92.4	93.8	82.4	92.3	93.4	85.1
1967	82.5	94.3	95.1	88.6	96.8	97.6	91.5
1968	90.6	100.2	101.1	93.4	101.8	102.7	95.8
1969	88.1	98.5	98.8	96.6	101.1	101.5	97.9
1970	88.5	100.2	101.4	91.3	101.1	102.4	91.5
1971	88.0	100.6	101.3	95.6	102.6	103.6	95.8
1972	99.5	107.2	108.6	97.6	107.6	109.1	97.9
1973	105.1	116.6	118.7	101.5	116.9	119.0	102.1
1974	96.6	107.5	107.9	105.3	110.1	110.6	106.4
1975	88.9	92.2	91.7	95.1	93.9	93.7	95.8
1976	100.9	98.1	98.2	97.5	97.3	97.3	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.5	100.5	100.9	97.9	99.2	99.4	97.9
1979	107.5	101.2	102.3	93.6	100.8	101.8	93.6
1980	98.9	94.5	94.9	91.5	95.8	96.4	91.5
1981 [1]	93.6	87.1	86.8	89.4	87.3	87.0	89.4
Average annual percent change:							
1954-81	3.5	1.6	1.6	1.3	1.5	1.6	1.2
1976-81	-1.1	-2.1	-2.1	-2.1	-1.9	-1.8	-2.2

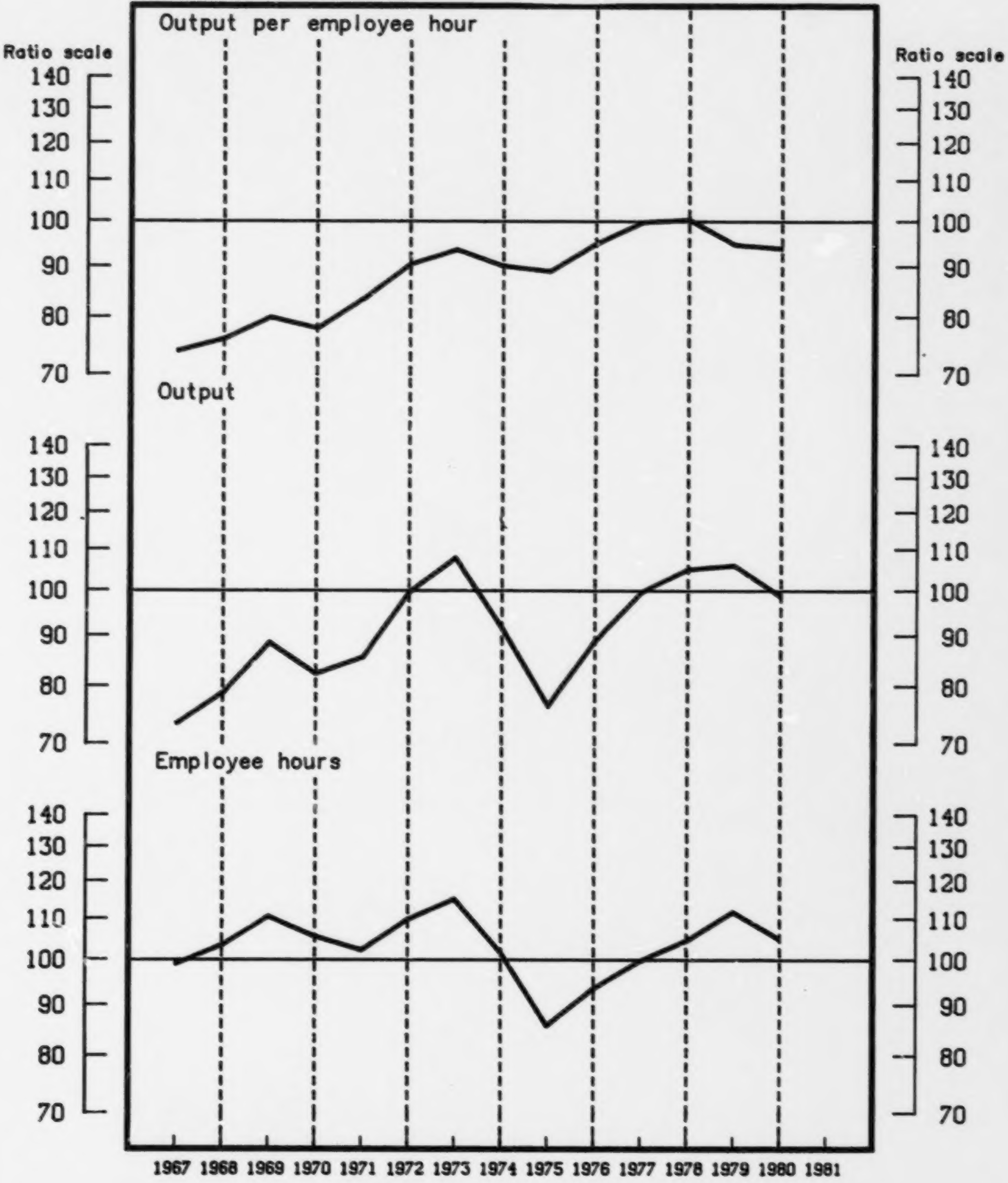
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 96. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Output per hour and related data, 1967-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 188. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output per employee hour and output per employee, 1961–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1961	61.9	58.4	75.7	62.2	58.9	74.4
1962	67.5	63.3	84.4	68.5	64.7	83.0
1963	67.5	63.9	81.2	69.2	66.3	79.8
1964	69.0	66.0	80.0	70.2	67.7	78.7
1965	72.3	67.5	91.2	74.9	71.0	89.7
1966	74.4	70.1	91.7	75.8	72.1	89.8
1967	74.1	70.7	86.7	75.8	73.2	94.6
1968	76.2	73.5	85.8	79.0	76.8	86.2
1969	80.1	77.8	88.5	82.2	80.1	89.3
1970	78.1	77.3	80.8	80.0	79.1	82.6
1971	83.7	82.1	88.9	84.3	82.3	90.7
1972	90.7	88.3	99.0	92.9	90.7	100.5
1973	93.8	89.9	107.4	95.3	91.6	108.2
1974	90.3	89.0	94.8	90.6	89.4	94.4
1975	89.2	90.1	86.7	88.8	89.6	86.6
1976	95.1	93.5	100.7	94.7	92.7	101.2
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.6	99.4	104.0	100.4	99.2	104.2
1979	94.9	94.8	95.2	95.3	95.3	95.5
1980 [2]	94.1	95.9	88.9	94.0	95.7	89.4
Average annual percent change:						
1961-80	2.4	2.8	1.1	2.3	2.6	1.2
1976-80	-.7	(3)	-2.9	-.6	.2	-2.9

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 189. Lighting fixtures (SIC 3645, 3646, 3647, 3648): Indexes of output, employee hours, and employees, 1961–80

(1977 = 100)

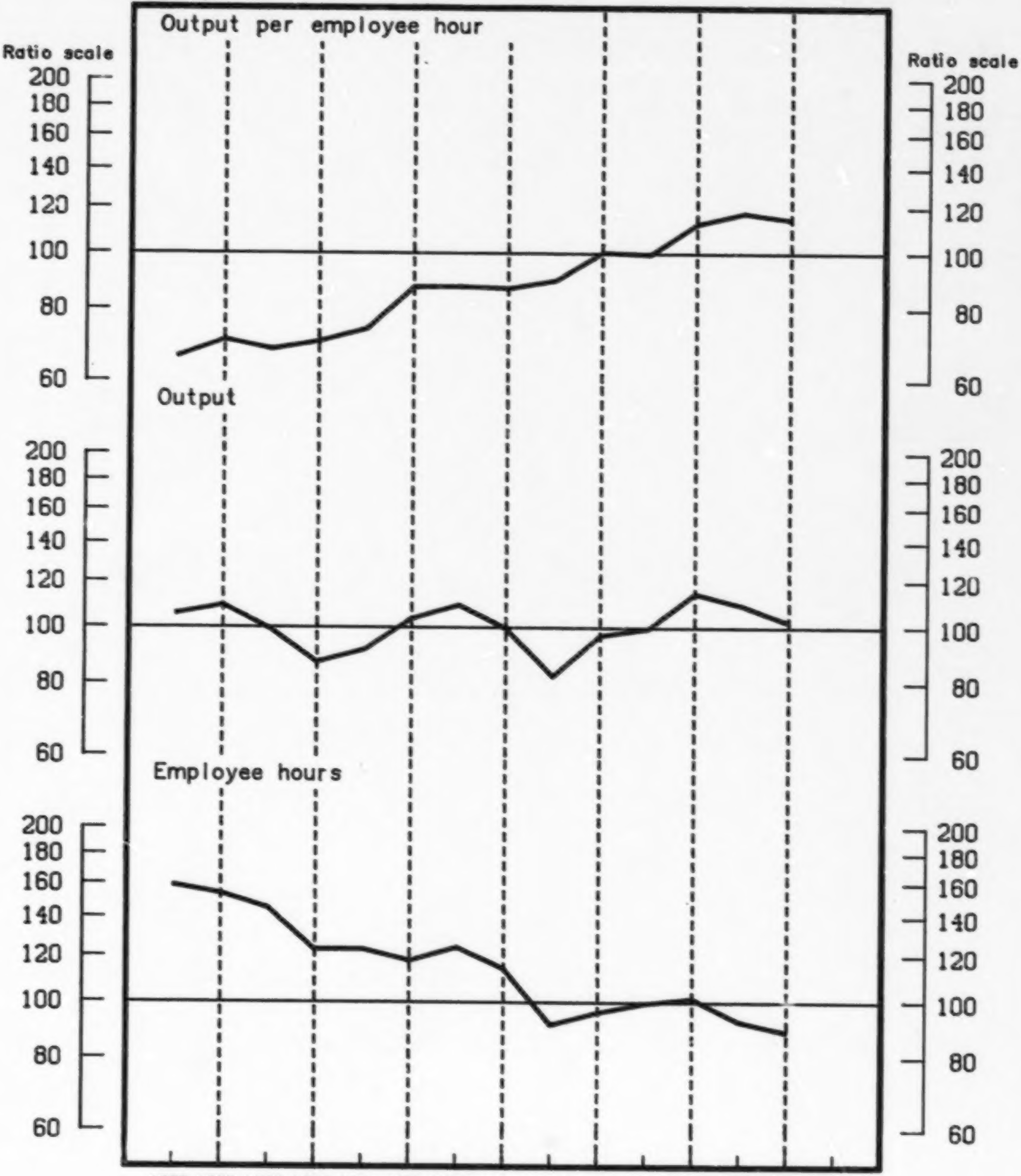
Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1961	46.5	75.1	79.6	61.4	74.8	78.9	62.5
1962	53.4	79.1	84.3	63.3	77.9	82.5	64.3
1963	56.0	83.0	87.6	69.0	80.9	84.5	70.2
1964	60.0	87.0	90.9	75.0	85.5	88.6	76.2
1965	69.3	95.9	102.6	78.0	92.5	97.6	77.3
1966	73.7	99.0	105.2	80.4	97.2	102.2	82.1
1967	73.5	99.2	104.0	84.8	97.0	100.4	86.9
1968	79.0	103.7	107.5	92.1	100.0	102.8	91.7
1969	88.8	110.8	114.2	100.3	108.0	110.8	99.4
1970	82.6	105.8	106.9	102.2	103.3	104.4	100.0
1971	85.8	102.5	104.5	96.5	101.8	104.2	94.6
1972	99.9	110.1	113.1	100.9	107.5	110.2	99.4
1973	108.2	115.4	120.3	100.7	113.5	118.1	100.0
1974	92.1	102.0	103.5	97.2	101.6	103.0	97.6
1975	76.8	86.1	85.2	88.6	86.5	85.7	88.7
1976	89.2	93.8	95.4	88.6	94.2	96.2	88.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.4	104.8	106.0	101.3	105.0	106.2	101.2
1979	106.3	112.0	112.1	111.7	111.6	111.6	111.3
1980 [1]	99.0	105.2	103.2	111.4	105.3	103.4	110.7
Average annual percent change:							
1961-80	3.7	1.3	.9	2.6	1.4	1.1	2.5
1976-80	2.7	3.5	2.8	5.9	3.4	2.6	5.8

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 97. Radio and television receiving sets (SIC 3651): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 190. Radio and television receiving sets (SIC 3651): Indexes of output per employee hour and output per employee, 1958–80

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1958	41.8	40.8	45.5	43.2	42.6	45.3
1959	44.6	42.5	53.8	46.1	44.3	53.5
1960	45.8	44.5	50.3	47.1	46.4	49.7
1961	46.9	46.3	48.7	47.3	47.1	47.9
1962	52.2	50.0	61.2	53.6	52.0	60.1
1963	58.1	54.1	76.7	59.9	56.5	75.2
1964	57.9	53.7	77.8	60.8	57.3	76.7
1965	63.5	58.1	92.1	67.5	62.8	90.4
1966	65.5	59.1	101.3	68.0	62.3	99.0
1967	66.5	61.6	90.0	67.7	63.5	87.9
1968	71.0	66.7	90.2	72.7	68.8	90.5
1969	68.4	65.2	81.3	70.5	67.8	81.9
1970	70.6	71.2	68.4	72.7	73.6	69.8
1971	74.2	73.2	77.4	76.3	75.5	78.9
1972	87.8	83.7	104.5	89.7	85.9	105.9
1973	87.9	83.2	108.5	88.9	84.3	109.1
1974	87.2	85.9	91.0	85.2	83.8	90.5
1975	90.1	91.6	85.5	89.7	91.2	85.3
1976	100.8	103.4	92.9	101.5	104.3	93.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.1	116.6	102.1	112.1	115.4	101.9
1979	118.1	121.5	107.5	119.7	123.9	107.9
1980 [2]	115.0	120.3	100.1	117.8	123.9	100.8
Average annual percent change:						
1958-80	4.7	5.1	3.2	4.6	4.9	3.3
1976-80	4.4	5.1	2.2	4.9	5.7	2.3

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Table 191. Radio and television receiving sets (SIC 3651): Indexes of output, employee hours, and employees, 1958–80

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1958	38.5	92.0	94.3	84.7	89.2	90.3	85.0
1959	46.3	103.7	109.0	86.1	100.5	104.5	86.5
1960	45.3	99.0	101.7	90.1	96.2	97.7	91.1
1961	48.7	103.8	105.2	99.9	103.0	103.3	101.7
1962	59.7	114.4	119.4	97.6	111.3	114.7	99.4
1963	65.2	112.3	120.5	85.0	108.9	115.5	86.7
1964	70.5	121.7	131.2	90.6	116.0	123.0	91.9
1965	90.6	142.6	155.9	98.4	134.3	144.2	100.2
1966	118.7	181.3	200.9	117.2	174.5	190.5	119.9
1967	106.0	159.5	172.1	117.8	156.5	166.9	120.6
1968	109.7	154.5	164.5	121.6	150.9	159.4	121.2
1969	99.8	145.9	153.0	122.7	141.5	147.1	121.8
1970	87.4	123.8	122.7	127.8	120.3	118.7	125.3
1971	91.9	123.9	125.6	118.7	120.5	121.7	116.5
1972	104.1	118.5	124.3	99.6	116.0	121.2	98.3
1973	109.8	124.9	132.0	101.2	123.5	130.2	100.6
1974	100.1	114.8	116.5	110.0	117.5	119.5	110.6
1975	82.8	91.9	90.4	96.8	92.3	90.8	97.1
1976	97.3	96.5	94.1	104.7	95.9	93.3	104.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.2	101.9	98.8	112.8	102.8	99.8	113.0
1979	109.8	93.0	90.4	102.1	91.7	88.6	101.8
1980 [1]	102.6	89.2	85.3	102.5	87.1	82.8	101.8
Average annual percent change:							
1958-80	4.0	-.7	-1.0	.8	-.5	-.8	.7
1976-80	2.0	-2.3	-2.9	-.2	-2.8	-3.5	-.3

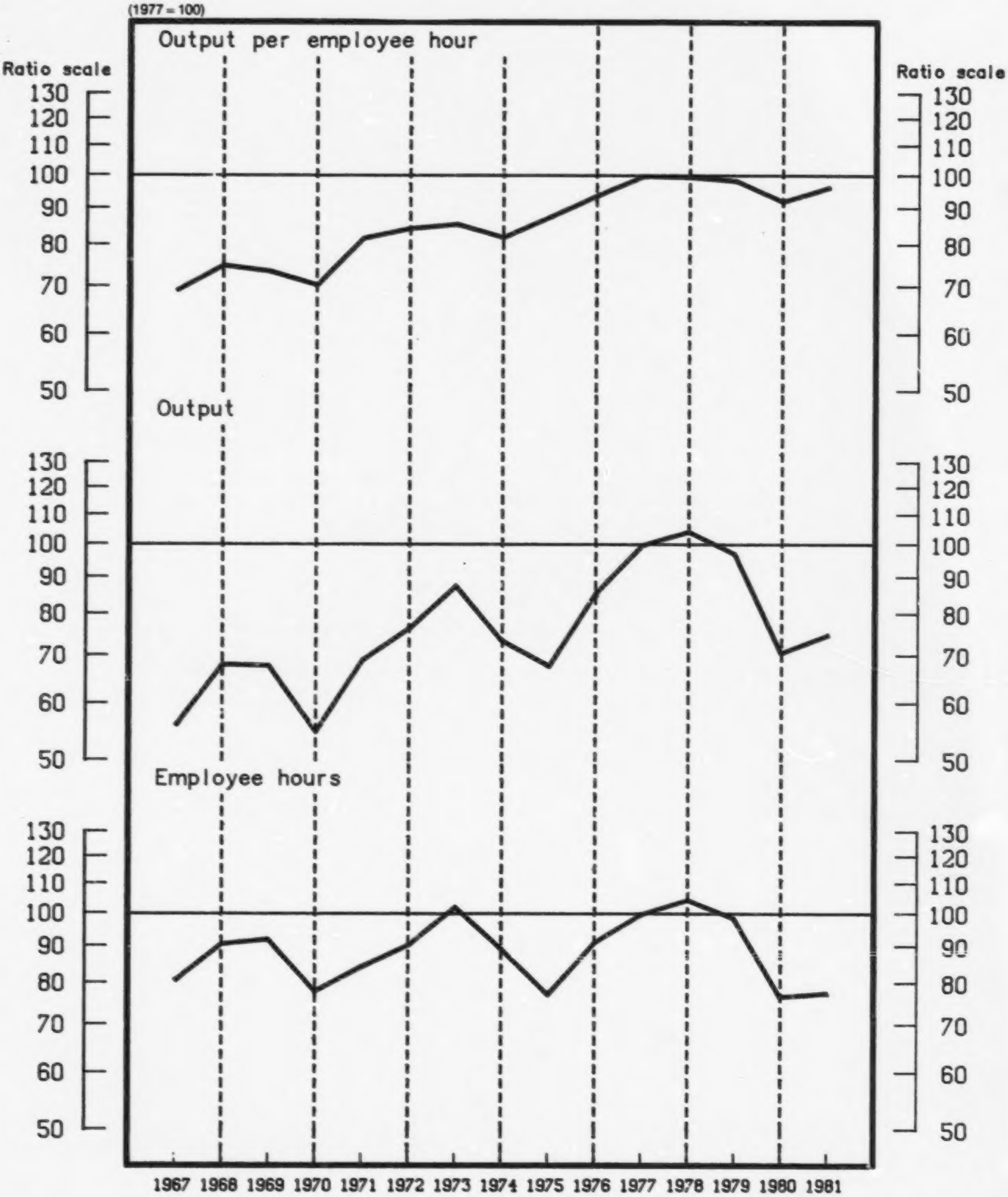
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Bureau of the Census and the Bureau of Labor Statistics.

Chart 98. Motor vehicles and equipment (SIC 371): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 192. Motor vehicles and equipment (SIC 371): Indexes of output per employee hour and output per employee, 1957–81

(1977 = 100)

Year	Output per hour [1]			Output per employee [1]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1957	47.6	47.5	48.0	44.6	44.2	46.0
1958	46.3	46.7	39.7	42.2	43.9	37.4
1959	50.8	51.0	49.8	47.8	47.7	48.0
1960	55.1	55.2	54.5	51.6	51.4	52.2
1961	55.9	57.7	50.4	51.4	52.5	47.7
1962	61.3	61.5	60.6	59.4	59.6	58.5
1963	63.7	63.7	63.4	61.9	62.0	61.5
1964	64.4	64.8	63.1	62.8	63.2	61.1
1965	68.6	67.7	72.2	68.6	67.9	70.6
1966	68.9	68.9	69.5	67.2	67.0	68.0
1967	69.3	70.5	65.6	64.8	65.4	62.8
1968	75.0	74.7	76.2	73.6	73.2	74.8
1969	73.6	73.9	72.4	70.2	70.1	70.6
1970	70.5	72.5	64.1	65.0	66.5	60.2
1971	81.9	82.4	80.3	76.9	77.1	75.9
1972	84.5	84.7	84.0	82.5	82.8	81.6
1973	85.7	85.9	85.1	84.7	85.0	83.9
1974	82.1	84.7	74.0	76.3	78.1	70.7
1975	87.7	89.8	80.9	80.7	82.3	75.6
1976	93.9	94.2	92.7	91.8	91.8	91.5
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	99.7	99.8	98.4	98.1	99.4
1979	98.5	100.0	93.6	92.9	93.5	91.4
1980	92.2	99.4	73.7	85.0	90.4	70.5
1981 [2]	96.5	101.8	82.1	90.6	94.6	79.3
Average annual percent change:						
1957-81	3.2	3.3	2.9	3.2	3.3	3.0
1976-81	-.3	1.1	-4.4	-1.7	-.6	-5.1

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from company records; the Motor Vehicle Manufacturers Association of the U.S., Inc.; the Gousha/Times Mirror Company (Automobile Invoice Service); Ward's Communications, Inc. (Ward's Automotive Yearbooks); the Bureau of the Census; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics and company records.

Table 193. Motor vehicles and equipment (SIC 371): Indexes of output, employee hours, and employees, 1957–81

(1977 = 100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1957	36.4	76.4	76.6	75.8	81.6	82.4	79.2
1958	27.2	58.7	55.9	68.6	64.4	62.0	72.8
1959	35.1	69.1	68.8	70.5	73.5	73.6	73.1
1960	39.7	72.1	71.9	72.9	76.9	77.2	76.0
1961	34.5	61.7	59.8	68.5	67.1	65.7	72.4
1962	43.6	71.1	70.9	71.7	73.4	73.1	74.5
1963	48.7	76.5	76.4	76.8	78.7	78.5	79.2
1964	50.2	78.0	77.5	79.6	79.9	79.4	82.1
1965	61.3	89.3	90.6	84.9	89.4	90.3	86.8
1966	61.5	89.2	89.3	88.5	91.5	91.8	90.4
1967	56.1	80.9	79.6	85.5	86.6	85.8	89.3
1968	68.2	90.9	91.3	89.5	92.7	93.2	91.2
1969	67.9	92.3	91.9	93.8	96.7	96.9	96.2
1970	55.1	78.2	76.0	86.0	84.8	82.9	91.5
1971	69.2	84.5	84.0	86.2	90.0	89.7	91.2
1972	76.6	90.6	90.4	91.2	92.8	92.5	93.9
1973	87.8	102.4	102.2	103.2	103.6	103.3	104.7
1974	73.6	89.6	86.9	99.5	96.4	94.2	104.1
1975	67.9	77.4	75.6	83.9	84.1	82.5	89.8
1976	85.8	91.4	91.1	92.6	93.5	93.5	93.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.4	104.7	104.7	104.6	106.1	106.4	105.0
1979	97.2	98.7	97.2	103.9	104.6	104.0	106.3
1980	70.8	76.8	71.2	96.1	83.3	78.3	100.4
1981 [1]	75.0	77.7	73.7	91.3	82.8	79.3	94.6
Average annual percent change:							
1957-81	4.5	1.3	1.2	1.8	1.3	1.2	1.5
1976-81	-5.0	-4.6	-6.0	-.8	-3.3	-4.4	.2

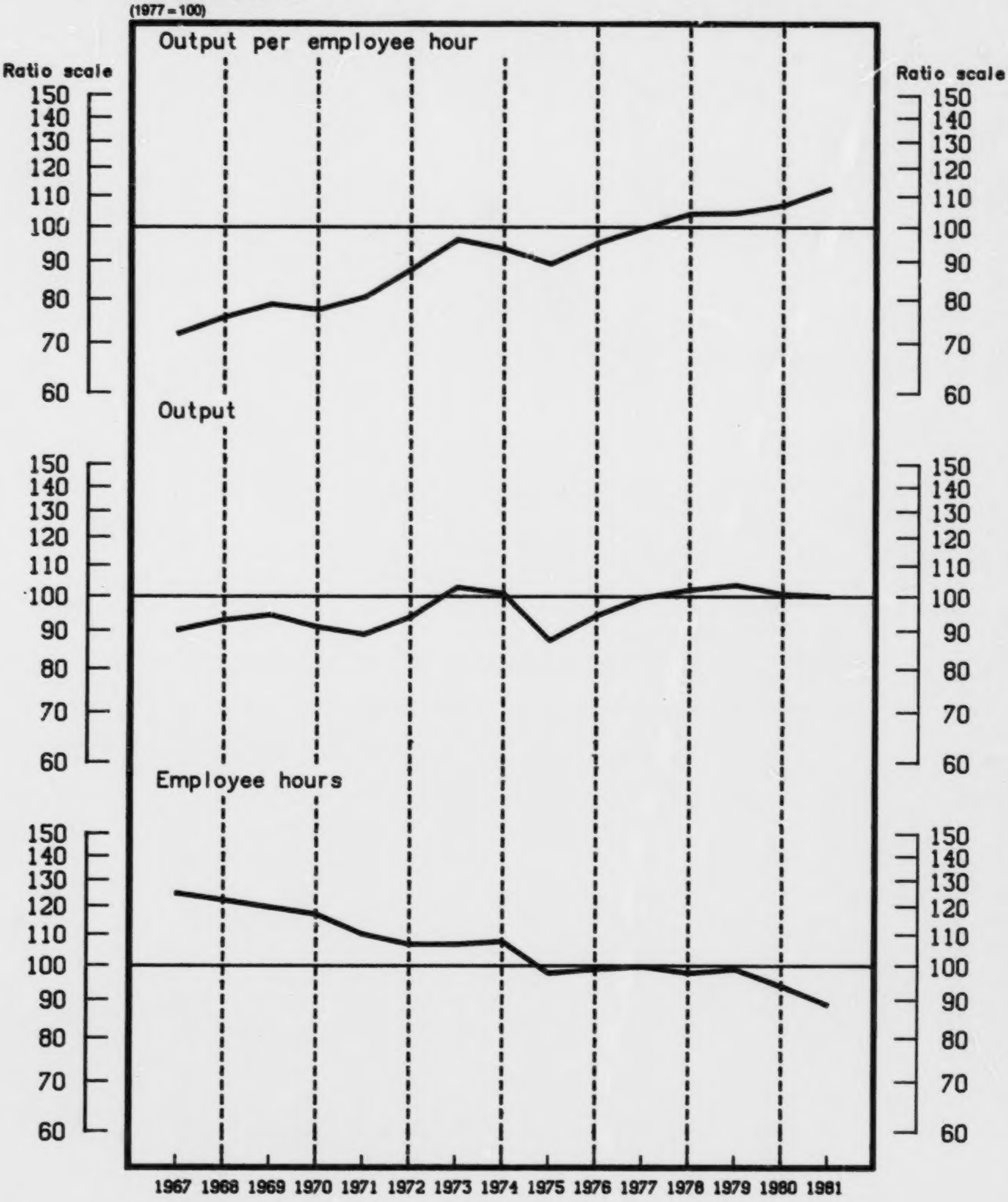
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from company records; the Motor Vehicle Manufacturers Association of the U.S., Inc.; the Gousha/Times Mirror Company (Automobile Invoice Service); Ward's Communications, Inc. (Ward's Automotive Yearbooks); the Bureau of the Census; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics and company records.

Chart 99. Railroad transportation, revenue traffic (SIC 401): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 194. Railroad transportation, revenue traffic (SIC 401)[1]: Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour [2]			Output per employee [2]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	35.3	33.8	50.6	36.7	35.0	55.5
1955	37.4	35.9	53.6	39.6	37.7	60.8
1956	38.2	36.7	53.8	40.2	38.4	61.1
1957	38.2	36.9	51.3	39.8	38.0	58.5
1958	41.1	40.0	49.9	42.5	41.0	56.5
1959	43.9	42.8	53.3	45.6	44.1	60.5
1960	45.1	44.1	53.3	46.6	45.1	60.3
1961	48.7	47.9	55.2	50.1	48.7	62.2
1962	52.2	51.3	59.7	54.1	52.7	67.4
1963	54.9	53.9	62.7	57.3	55.8	70.7
1964	58.4	57.4	66.5	61.7	60.2	75.6
1965	65.1	64.3	71.4	68.1	66.6	81.0
1966	70.2	69.2	77.1	73.1	71.6	85.5
1967	72.2	71.2	79.8	73.6	72.4	83.5
1968	76.0	75.2	82.9	78.4	77.3	87.2
1969	79.0	78.1	85.7	81.3	80.3	89.4
1970	77.7	76.9	83.1	78.8	79.0	86.5
1971	80.8	80.5	83.5	79.6	78.9	86.3
1972	86.0	87.7	89.5	89.0	88.5	92.0
1973	96.4	95.9	99.0	96.4	95.8	101.0
1974	93.7	93.3	96.8	94.6	94.1	98.4
1975	89.5	89.9	88.1	88.5	88.7	87.2
1976	95.4	95.5	94.0	95.3	95.3	95.6
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.7	103.5	104.5	104.6	103.5
1979	104.7	104.8	104.1	105.4	105.5	104.4
1980	107.3	108.4	101.4	105.5	106.2	101.0
1981 [3]	112.9	114.7	102.8	110.2	111.3	103.3
Average annual percent change:						
1947-81	4.6	4.8	2.6	4.1	4.3	2.1
1976-81	3.1	3.4	1.4	2.6	2.8	1.2

[1] Class I railroads and Class I switching and terminal companies.

[2] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Association of American Railroads; the Federal Railroad Administration, U.S. Department of Transportation; and the National Railroad Passenger Corporation. Employment and hours based on data from the Interstate Commerce Commission.

Table 195. Railroad transportation, revenue traffic (SIC 401)[1]: Indexes of output, employee hours, and employees, 1954-81

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	79.0	223.7	233.5	156.2	215.2	225.6	142.3
1955	84.7	226.2	236.2	158.0	214.0	224.6	139.4
1956	85.2	223.0	232.4	158.3	211.8	222.1	139.4
1957	79.9	206.9	216.8	154.7	200.9	210.0	136.5
1958	72.7	177.0	181.6	145.6	171.1	177.2	128.6
1959	75.7	172.5	176.9	142.0	166.1	171.8	125.1
1960	74.1	164.2	167.9	139.0	159.1	164.3	122.6
1961	73.2	150.3	152.9	132.6	146.2	150.3	117.6
1962	77.2	147.8	150.5	129.3	142.6	146.4	114.5
1963	79.3	144.4	147.1	126.5	138.5	142.2	112.1
1964	83.5	142.9	145.4	125.6	135.3	138.8	110.4
1965	88.1	135.3	137.1	123.4	129.4	132.3	108.8
1966	92.9	132.4	134.3	120.2	127.1	129.7	108.7
1967	90.4	125.2	126.9	113.3	122.9	124.8	108.2
1968	93.3	122.7	124.1	112.6	119.0	120.7	107.0
1969	94.8	120.0	121.4	110.6	116.6	118.1	106.0
1970	91.3	117.5	118.7	109.9	114.4	115.6	105.5
1971	89.3	110.5	111.0	107.0	112.2	113.2	103.5
1972	94.2	107.1	107.4	105.2	105.9	106.4	102.4
1973	103.2	107.1	107.6	104.2	107.0	107.7	102.2
1974	101.3	108.1	108.6	104.6	107.1	107.6	102.9
1975	87.7	98.0	97.5	101.9	99.1	98.9	100.6
1976	94.6	99.2	99.1	100.6	99.3	99.3	99.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.4	98.0	97.8	98.9	98.0	97.9	98.9
1979	103.9	99.2	99.1	99.8	98.6	96.5	99.5
1980	101.1	94.2	93.3	99.7	95.8	95.2	100.1
1981 [2]	100.4	86.9	87.5	97.7	91.1	90.2	97.2
Average annual percent change:							
1947-81	.6	-3.8	-4.0	-2.0	-3.4	-3.6	-1.5
1976-81	1.0	-2.0	-2.3	-.4	-1.6	-1.8	-.2

[1] Class I railroads and Class I switching and terminal companies.

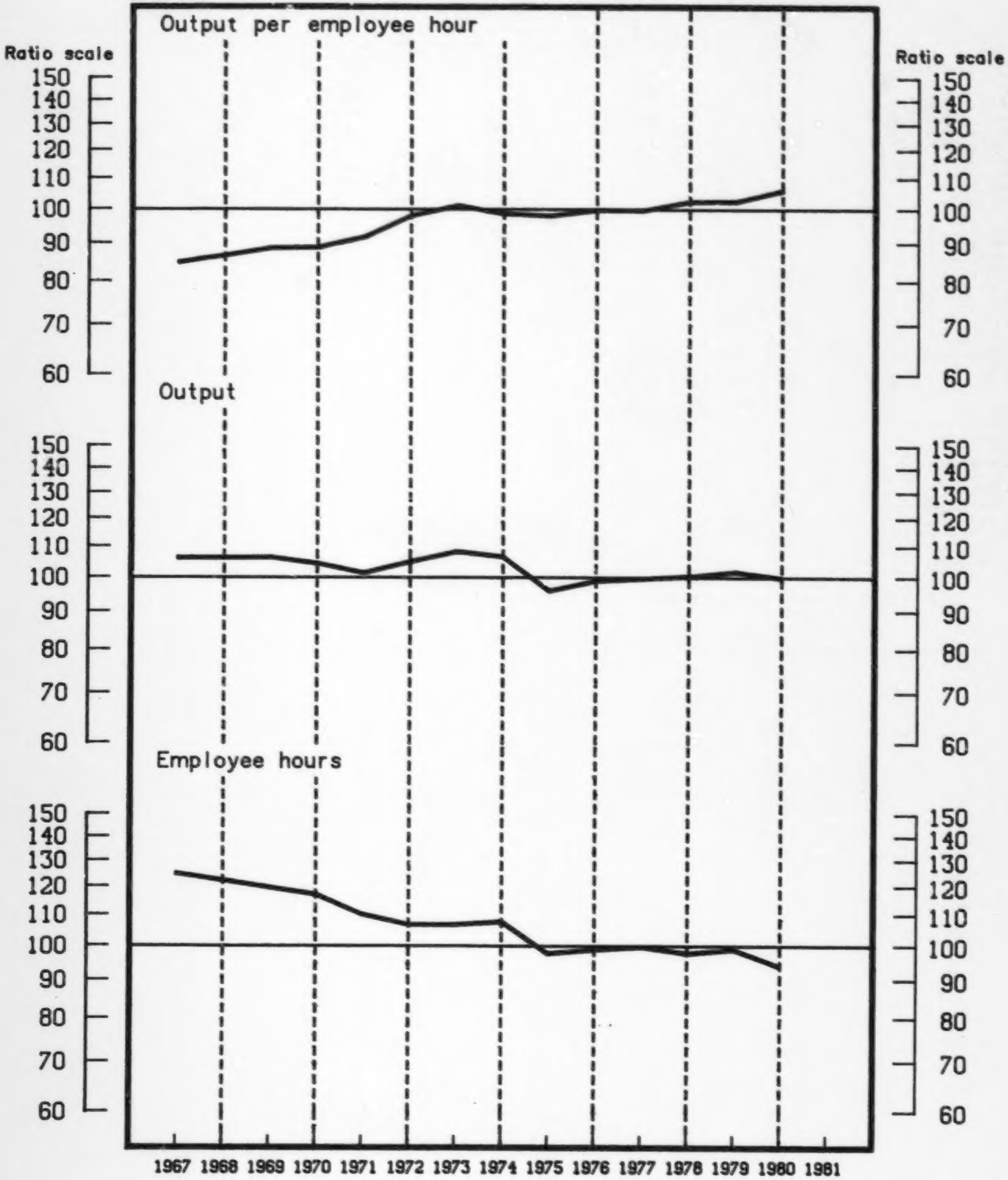
[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Association of American Railroads; the Federal Railroad Administration, U.S. Department of Transportation; and the National Railroad Passenger Corporation. Employment and hours based on data from the Interstate Commerce Commission.

Chart 100. Railroad transportation, car miles (SIC 401): Output per hour and related data, 1967-80

(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 196. Railroad transportation, car miles (SIC 401)[1]: Indexes of output per employee hour and output per employee, 1954-80

(1977=100)

Year	Output per hour [2]			Output per employee [2]		
	All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:						
1954	48.9	46.8	70.0	50.8	48.4	76.8
1955	51.8	49.6	74.1	54.7	52.1	84.0
1956	53.0	50.9	74.7	55.8	53.2	84.8
1957	54.7	52.7	73.9	56.9	54.4	83.7
1958	59.0	57.5	71.8	61.1	59.0	81.3
1959	61.4	59.9	74.6	63.8	61.6	84.7
1960	63.3	61.9	74.7	65.3	63.2	84.6
1961	66.7	65.5	75.6	68.5	66.7	85.2
1962	68.9	67.7	78.6	71.5	69.6	89.0
1963	71.3	70.0	81.4	74.4	72.4	91.9
1964	73.8	72.5	83.9	77.9	75.9	95.5
1965	78.7	77.7	86.3	82.3	80.5	97.9
1966	82.8	81.6	91.2	86.2	84.5	100.8
1967	85.1	83.9	94.0	86.7	85.3	98.4
1968	86.9	85.9	94.7	89.6	88.3	99.6
1969	88.9	87.9	96.5	91.5	90.3	100.7
1970	89.1	88.2	95.3	91.5	90.8	99.2
1971	92.0	91.6	95.0	90.6	89.8	98.3
1972	98.3	98.0	100.1	99.4	99.0	102.8
1973	101.4	100.9	104.2	101.5	100.8	106.3
1974	98.9	98.4	102.2	99.8	99.3	103.9
1975	98.3	98.8	94.5	97.2	97.4	95.7
1976	100.1	100.2	98.7	100.0	100.0	100.3
1977	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.8	103.0	101.8	102.8	102.9	101.8
1979	102.9	103.0	102.3	103.5	103.7	102.6
1980 [3]	106.4	107.4	100.5	104.6	105.3	100.1
Average annual percent change:						
1947-80	3.5	3.7	1.6	3.0	3.3	1.0
1976-80	1.5	1.7	.6	1.3	1.4	.2

---

[1] Class I railroads and Class I switching and terminal companies.

[2] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Association of American Railroads. Employment and hours based on data from the Interstate Commerce Commission.

Table 197. Railroad transportation, car miles (SIC 401)[1]: Indexes of output, employee hours, and employees, 1954-80

(1977=100)

Year	Output	Employee hours			Employees		
		All employees	Production workers	Nonproduction workers	All employees	Production workers	Nonproduction workers
Index:							
1954	109.3	223.7	233.5	156.2	215.2	225.6	142.3
1955	117.1	226.2	236.2	158.0	214.0	224.6	139.4
1956	118.2	223.0	232.4	158.3	211.8	222.1	139.4
1957	114.3	208.9	216.8	154.7	200.9	210.0	136.5
1958	104.5	177.0	181.6	145.6	171.1	177.2	128.6
1959	105.9	172.5	176.9	142.0	166.1	171.8	125.1
1960	103.9	164.2	167.9	139.0	159.1	164.3	122.8
1961	100.2	150.3	152.9	132.6	146.2	150.3	117.6
1962	101.9	147.8	150.5	129.3	142.6	146.4	114.5
1963	103.0	144.4	147.1	126.5	138.5	142.2	112.1
1964	105.4	142.9	145.4	125.6	135.3	138.8	110.4
1965	106.5	135.3	137.1	123.4	129.4	132.3	108.8
1966	109.6	132.4	134.3	120.2	127.1	129.7	108.7
1967	106.5	125.2	126.9	113.3	122.9	124.8	108.2
1968	106.6	122.7	124.1	112.6	119.0	120.7	107.0
1969	106.7	120.0	121.4	110.6	116.6	118.1	106.0
1970	104.7	117.5	118.7	109.9	114.4	115.6	105.5
1971	101.7	110.5	111.0	107.0	112.2	113.2	103.5
1972	105.3	107.1	107.4	105.2	105.9	106.4	102.4
1973	106.6	107.1	107.6	104.2	107.0	107.7	102.2
1974	106.9	108.1	108.6	104.6	107.1	107.6	102.9
1975	96.3	98.0	97.5	101.9	99.1	98.9	100.6
1976	99.3	99.2	99.1	100.6	99.3	99.3	99.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	98.0	97.8	98.9	98.0	97.9	98.9
1979	102.1	99.2	99.1	99.8	98.6	98.5	99.5
1980 [2]	100.2	94.2	93.3	99.7	95.8	95.2	100.1
Average annual percent change:							
1947-80	-.5	-3.9	-4.1	-2.0	-3.4	-3.7	-1.5
1976-80	.4	-1.1	-1.3	-.2	-.9	-1.0	.2

---

[1] Class I railroads and Class I switching and terminal companies.

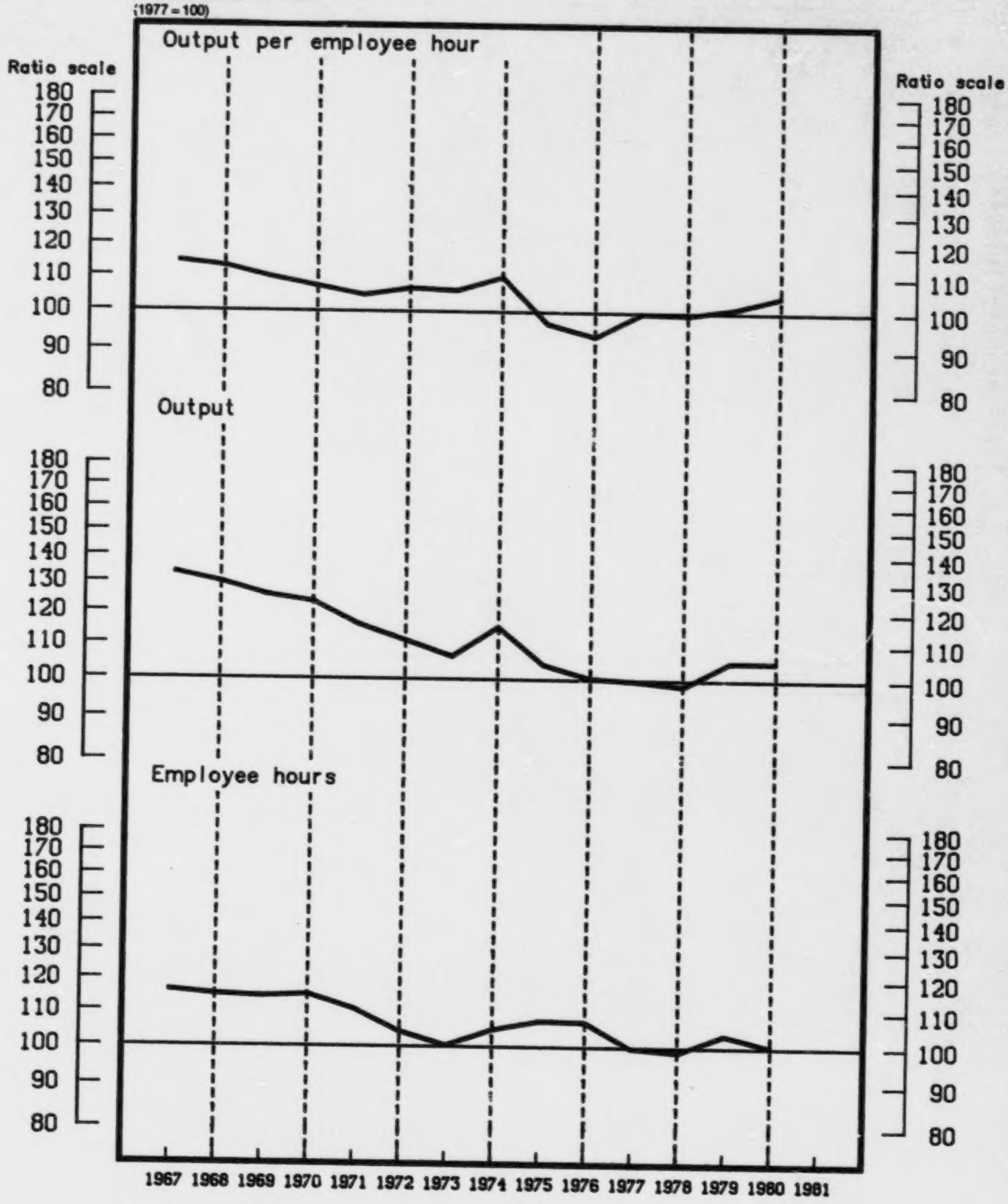
[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Association of American Railroads. Employment and hours based on data from the Interstate Commerce Commission.

Chart 101. Bus carriers, Class I (parts of SIC 4111, 4131, 414): Output per hour and related data, 1967-80

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 198. Bus carriers, Class 1 (Parts of SIC 4111, 4131, 414): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1954–80

(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1954	88.9	96.3	107.8	121.2	111.9
1955	92.3	99.3	105.8	114.6	106.5
1956	93.2	100.0	104.4	112.0	104.4
1957	93.7	100.3	104.8	111.9	104.5
1958	94.2	99.5	99.1	105.2	99.6
1959	97.2	102.6	99.1	102.0	96.6
1960	96.1	102.3	100.9	105.0	98.6
1961	97.9	103.5	103.2	105.4	99.7
1962	107.1	114.3	115.4	107.7	101.0
1963	106.7	114.6	115.9	108.6	101.1
1964	109.8	116.1	120.7	109.9	104.0
1965	116.3	122.0	127.2	109.4	104.3
1966	118.8	124.5	132.8	111.8	106.7
1967	114.8	121.2	133.9	116.6	110.5
1968	113.2	119.6	130.5	115.3	109.1
1969	109.9	115.6	126.1	114.7	109.1
1970	107.3	112.8	123.8	115.4	109.8
1971	104.8	108.1	116.3	111.0	107.6
1972	106.8	105.7	111.5	104.4	105.5
1973	106.2	107.7	106.8	100.6	99.2
1974	110.2	112.0	115.8	105.1	103.4
1975	97.0	97.9	104.4	107.6	106.6
1976	93.8	95.1	100.7	107.3	105.9
1977	100.0	100.0	100.0	100.0	100.0
1978	99.7	100.8	98.7	99.0	97.9
1979	101.5	104.8	105.4	103.8	100.6
1980 [1]	104.8	100.8	105.4	100.6	104.6
Average annual percent change:					
1954-80	.3	(2)	(2)	-.3	(2)
1976-80	2.4	1.6	1.4	-.9	-.2

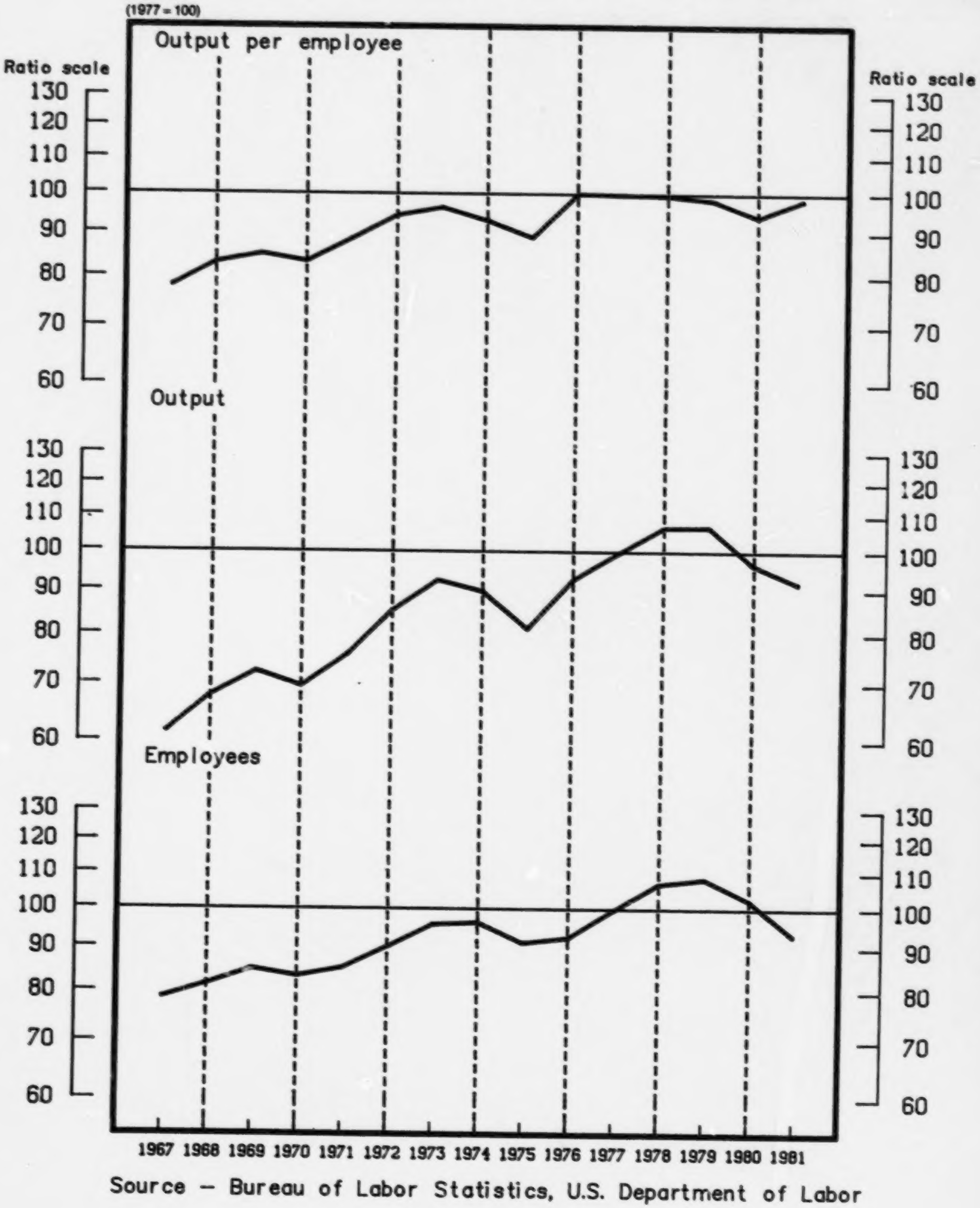
[1] Preliminary.

[2] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, employment, and hours based on data from the Interstate Commerce Commission, the American Bus Association, and the Bureau of Labor Statistics.

Chart 102. Intercity trucking (SIC 4213 part): Output per employee and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 199. Intercity trucking (SIC 4213 part)[1]: Indexes of output per employee, output, and employees, 1954–81

(1977=100)

Year	Output per employee	Output	Employees
Index:			
1954	56.8	27.5	48.4
1955	59.9	31.7	52.9
1956	60.3	33.1	54.9
1957	61.1	34.9	57.1
1958	62.9	34.9	55.5
1959	66.5	40.9	61.5
1960	66.5	41.8	62.6
1961	67.2	41.4	61.6
1962	69.3	44.8	64.6
1963	72.5	48.1	66.3
1964	74.5	51.2	68.7
1965	77.2	57.5	74.5
1966	81.3	63.8	78.5
1967	78.2	61.7	78.9
1968	83.3	68.1	81.8
1969	85.2	72.8	85.2
1970	83.5	69.8	83.6
1971	88.8	75.9	85.5
1972	94.6	85.6	90.5
1973	96.6	92.8	96.1
1974	93.3	90.1	96.6
1975	89.2	81.6	91.5
1976	100.3	93.1	92.8
1977	100.0	100.0	100.0
1978	99.8	107.0	107.2
1979	96.6	107.2	108.7
1980	94.3	96.8	102.7
1981[2]	98.7	92.1	93.3
Average annual percent change:			
1954-81	2.2	5.1	2.8
1976-81	-.8	-.4	.3

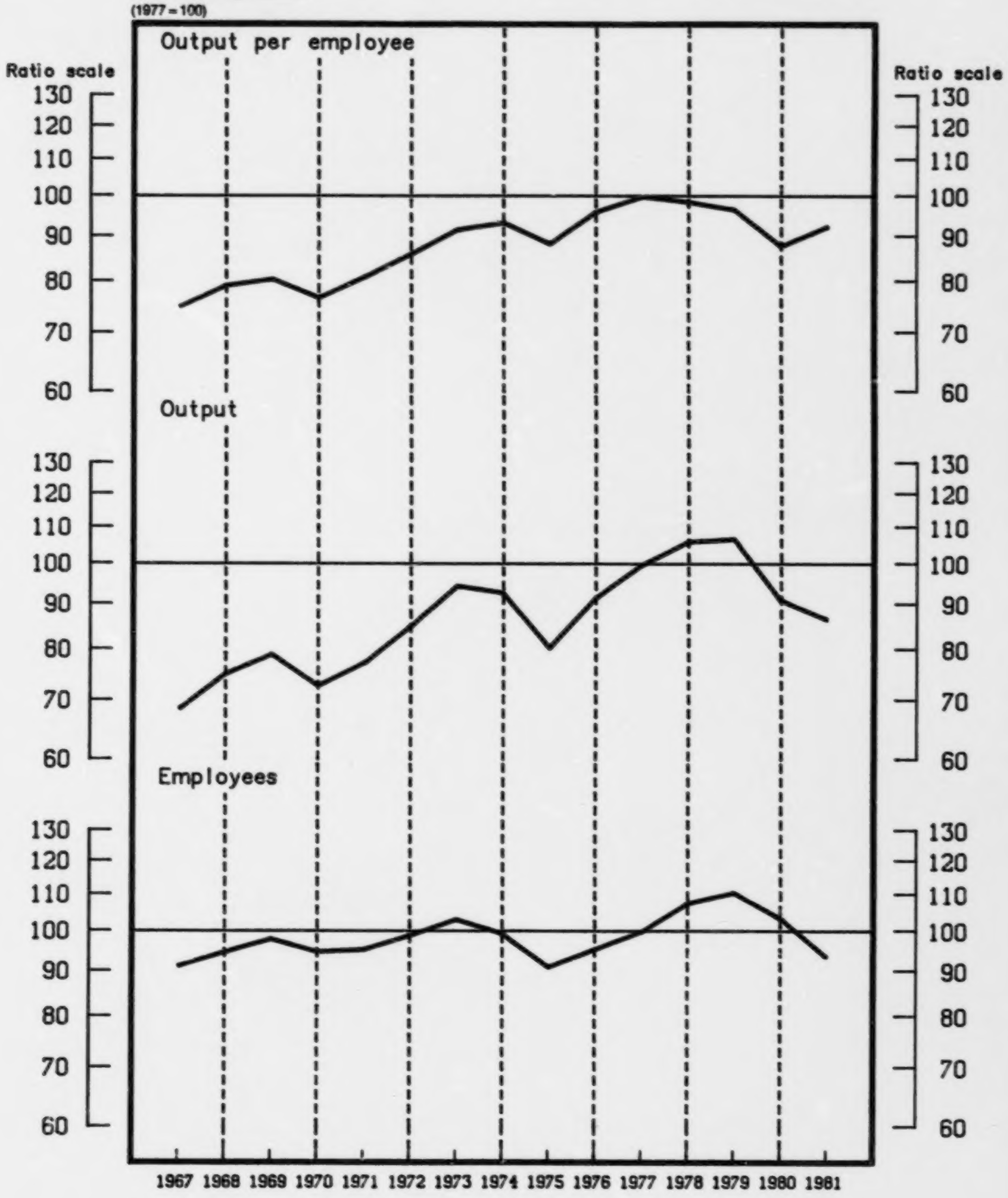
[1] Class I and II common and contract carriers.

[2] Preliminary.

NOTE: Because of periodic revisions in source data the measures in this table may differ from those previously published.

SOURCE: Based on data from the Interstate Commerce Commission and Trinc Transportation Consultants, a division of Dunn and Bradstreet, Inc.

Chart 103. Intercity trucking, general freight (SIC 4213 part): Output per employee and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 200. Intercity trucking, general freight (SIC 4213 part)[1]: Indexes of output per employee, output, and employees, 1954-81

(1977=100)

Year	Output per employee	Output	Employees
Index:			
1954	58.3	34.9	59.9
1955	60.2	39.0	64.8
1956	60.9	41.2	67.7
1957	60.6	42.8	70.6
1958	61.5	42.1	68.4
1959	66.0	48.9	74.1
1960	65.0	48.5	74.6
1961	65.0	47.7	73.4
1962	66.9	51.3	76.7
1963	69.6	54.2	77.9
1964	72.7	58.5	80.5
1965	78.7	64.2	81.6
1966	77.4	70.9	91.6
1967	75.1	68.6	91.4
1968	79.3	75.2	94.8
1969	80.6	79.1	98.1
1970	76.8	72.9	94.9
1971	81.1	77.4	95.4
1972	86.1	85.2	99.0
1973	91.7	94.6	103.2
1974	93.4	92.9	99.5
1975	88.4	80.6	91.2
1976	96.1	91.8	95.5
1977	100.0	100.0	100.0
1978	98.6	106.2	107.7
1979	96.6	106.9	110.7
1980	87.9	91.1	103.6
1981 [2]	92.5	86.7	93.7
Average annual percent change:			
1954-81	2.0	4.0	1.9
1976-81	-1.7	-1.6	.1

[1] Class I and II common carriers of general freight.

[2] Preliminary.

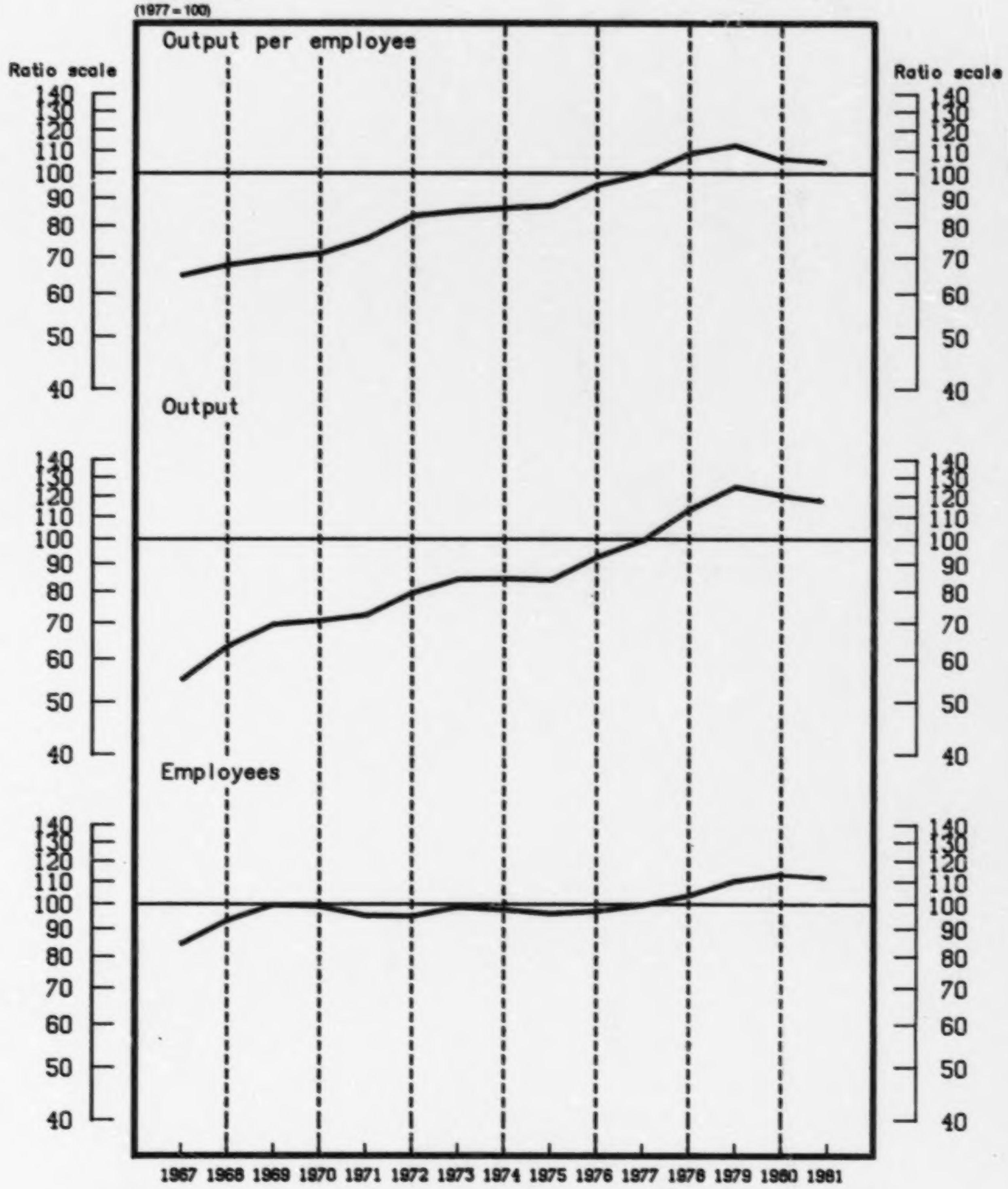
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Based on data from the Interstate Commerce Commission and Trinc Transportation Consultants, a division of Dunn and Bradstreet, Inc.

BEST DOCUMENT AVAILABLE

Chart 104. Air transportation (SIC 4511, 4521 part): Output per employee and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 201. Air transportation (SIC 4511, 4521 part)[1]: Indexes of output per employee, output, and employees, 1954–81

(1977=100)

Year	Output per employee	Output	Employees
Index:			
1954	25.5	9.6	37.6
1955	28.7	11.4	39.7
1956	29.6	13.2	44.6
1957	30.7	15.0	48.9
1958	31.6	15.2	48.1
1959	34.0	17.5	51.4
1960	34.3	18.6	54.3
1961	36.2	19.7	54.4
1962	40.4	22.3	55.2
1963	44.4	25.2	56.7
1964	48.8	29.4	60.2
1965	54.4	35.5	65.3
1966	61.1	43.6	71.4
1967	65.1	55.2	84.8
1968	68.0	63.7	93.7
1969	69.9	69.9	100.0
1970	71.4	71.0	99.4
1971	76.0	72.7	95.6
1972	83.8	79.9	95.3
1973	85.5	84.7	99.1
1974	86.6	84.9	98.0
1975	87.6	84.4	96.4
1976	85.5	83.1	97.5
1977	100.0	100.0	100.0
1978	109.3	113.9	104.2
1979	113.1	125.4	110.9
1980	106.2	121.0	113.9
1981 [2]	105.9	117.6	111.1
Average annual percent change:			
1947-81	6.6	11.6	4.7
1976-81	2.1	5.4	3.2

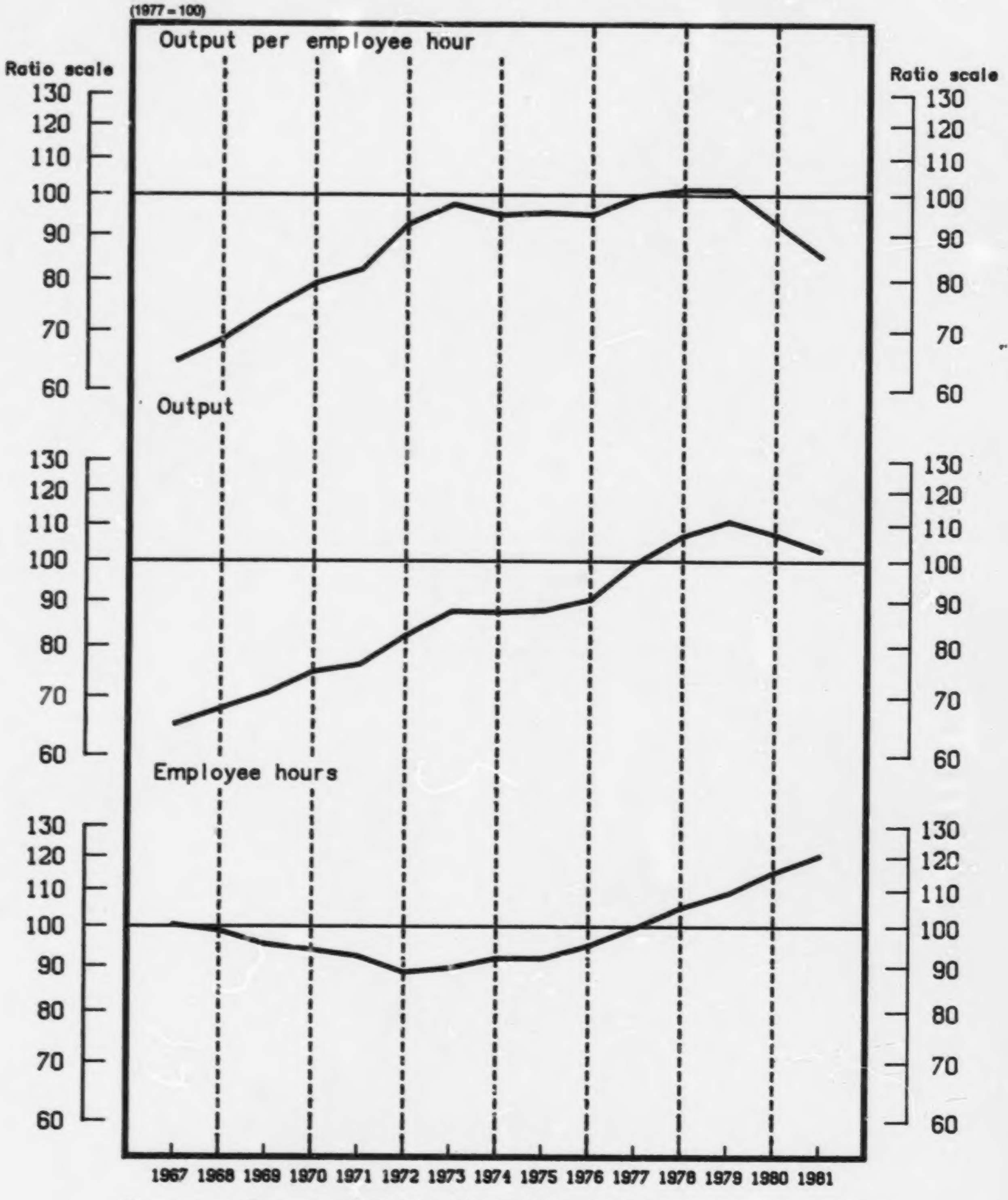
[1] Due to airline deregulation, the measures for 1980 and 1981 reflect the inclusion of some noncertificated carriers.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Based on Civil Aeronautics Board data.

Chart 105. Petroleum pipelines (SIC 4612, 4613): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 202. Petroleum pipelines (SIC 4612, 4613): Indexes of output per employee hour and output per employee, 1958–81

(1977 = 100)

Year	Output per hour [1]		Output per employee [1]	
	All employees	Production workers [2]	All employees	Production workers [2]
Index:				
1958	26.3	22.4	25.7	21.9
1959	30.3	25.7	29.5	25.1
1960	32.6	28.0	31.5	27.0
1961	34.8	30.4	33.5	29.2
1962	36.3	31.2	35.3	30.3
1963	40.0	34.2	39.0	33.3
1964	43.4	37.7	42.7	37.2
1965	51.6	45.3	50.8	44.7
1966	58.1	51.1	56.9	50.1
1967	64.9	57.2	64.6	56.9
1968	68.7	61.1	68.1	60.5
1969	74.2	67.3	73.2	66.6
1970	79.5	73.6	78.9	72.9
1971	82.4	77.7	81.7	77.0
1972	92.8	86.8	91.4	85.7
1973	97.8	92.1	96.8	91.3
1974	95.1	89.7	93.8	88.4
1975	95.7	92.6	93.2	90.2
1976	95.2	93.9	94.7	93.5
1977	100.0	100.0	100.0	100.0
1978	101.7	103.2	101.2	102.7
1979	101.7	105.1	102.5	105.9
1980	93.0	95.8	93.5	96.2
1981 [3]	85.3	89.7	87.1	91.6
Average annual percent change:				
1958-81	6.1	7.2	6.3	7.3
1976-81	-2.2	-1.0	-1.7	-.5

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Represents nonsupervisory workers.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Interstate Commerce Commission. Employment and hours based on data from the Bureau of Labor Statistics and the Interstate Commerce Commission.

Table 203. Petroleum pipelines (SIC 4612, 4613): Indexes of output, employee hours, and employees, 1958–81

(1977 = 100)

Year	Output	Employee hours		Employees	
		All employees	Production workers [1]	All employees	Production workers [1]
Index:					
1958	35.7	135.9	159.7	138.9	163.2
1959	38.7	127.9	150.3	131.3	154.4
1960	39.3	120.4	140.4	124.9	145.5
1961	40.2	115.4	132.2	120.0	137.5
1962	41.2	113.4	132.1	116.8	136.0
1963	43.6	109.0	127.4	111.9	130.8
1964	46.2	106.5	122.5	108.2	124.2
1965	53.6	103.9	118.2	105.5	119.8
1966	58.2	100.2	113.9	102.2	116.2
1967	65.3	100.6	114.2	101.1	114.7
1968	68.1	99.1	111.4	100.0	112.5
1969	70.9	95.6	105.4	96.8	106.5
1970	75.0	94.3	101.9	95.1	102.9
1971	76.4	92.7	98.3	93.5	99.2
1972	82.5	88.9	95.0	90.3	96.3
1973	87.9	89.9	95.4	90.8	96.3
1974	87.7	92.2	97.8	93.5	99.2
1975	88.2	92.2	95.2	94.6	97.8
1976	90.7	95.3	96.6	95.8	97.0
1977	100.0	100.0	100.0	100.0	100.0
1978	107.2	105.4	103.9	105.9	104.4
1979	111.3	109.4	105.9	108.6	105.1
1980	107.6	115.7	112.3	115.1	111.8
1981 [2]	103.1	120.9	114.9	118.4	112.5
Average annual percent change:					
1958-81	5.4	-.7	-1.6	-.9	-1.8
1976-81	2.6	4.9	3.6	4.4	3.1

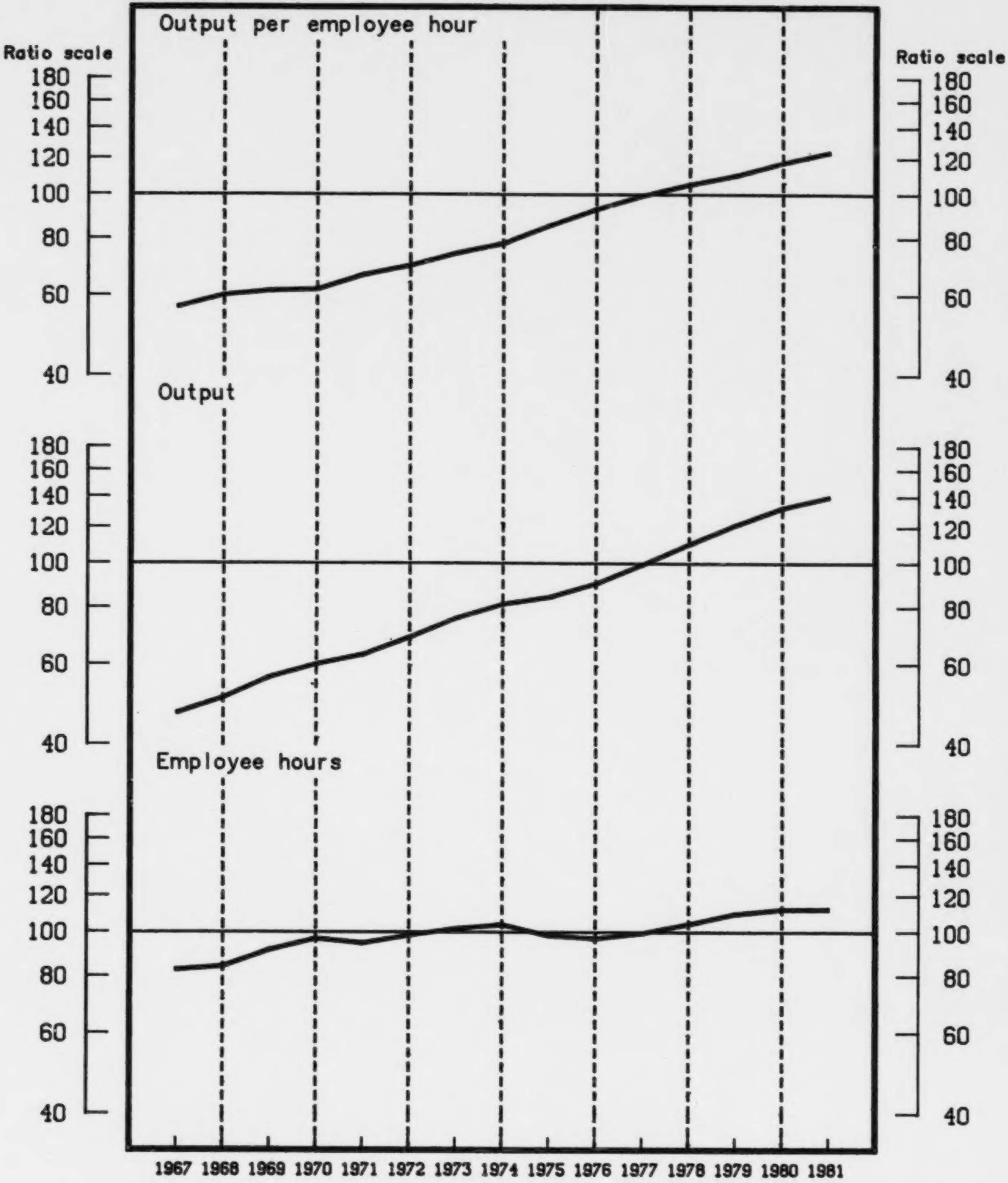
[1] Represents nonsupervisory workers.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Interstate Commerce Commission. Employment and hours based on data from the Bureau of Labor Statistics and the Interstate Commerce Commission.

Chart 106. Telephone communications (SIC 4811): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 204. Telephone communications (SIC 4811): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1954-81

(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1954	23.2	22.6	16.5	71.2	73.0
1955	25.0	24.8	18.3	73.3	73.8
1956	25.6	25.4	19.9	77.7	78.4
1957	28.1	27.4	22.0	78.4	80.3
1958	31.8	30.6	23.4	73.6	76.5
1959	35.3	34.6	25.6	72.6	73.9
1960	37.4	37.2	27.4	73.2	73.7
1961	40.7	40.1	29.1	71.5	72.5
1962	43.5	43.5	31.2	71.8	71.8
1963	46.7	46.8	33.5	71.8	71.6
1964	48.5	48.9	36.1	74.4	73.8
1965	50.6	51.3	39.4	77.8	76.8
1966	52.9	53.8	43.5	82.2	80.8
1967	56.9	56.1	47.2	83.0	84.2
1968	60.4	60.1	51.0	84.5	84.8
1969	61.7	62.3	56.6	91.8	90.9
1970	62.1	61.4	60.4	97.2	98.4
1971	66.8	63.8	63.4	94.9	99.4
1972	70.0	69.3	69.2	98.9	99.8
1973	74.6	74.3	76.2	102.2	102.5
1974	78.4	78.3	81.8	104.3	104.5
1975	85.9	84.0	84.8	98.7	101.0
1976	93.3	91.2	90.8	97.3	99.6
1977	100.0	100.0	100.0	100.0	100.0
1978	105.8	106.6	110.8	104.7	103.9
1979	110.8	111.6	122.2	110.3	109.5
1980	118.1	118.9	133.2	112.8	112.0
1981 [1]	124.5	125.1	140.6	112.9	112.4
Average annual percent change:					
1951-81	6.2	6.3	8.1	1.8	1.7
1976-81	5.8	6.3	9.4	3.4	2.9

[1] Preliminary.

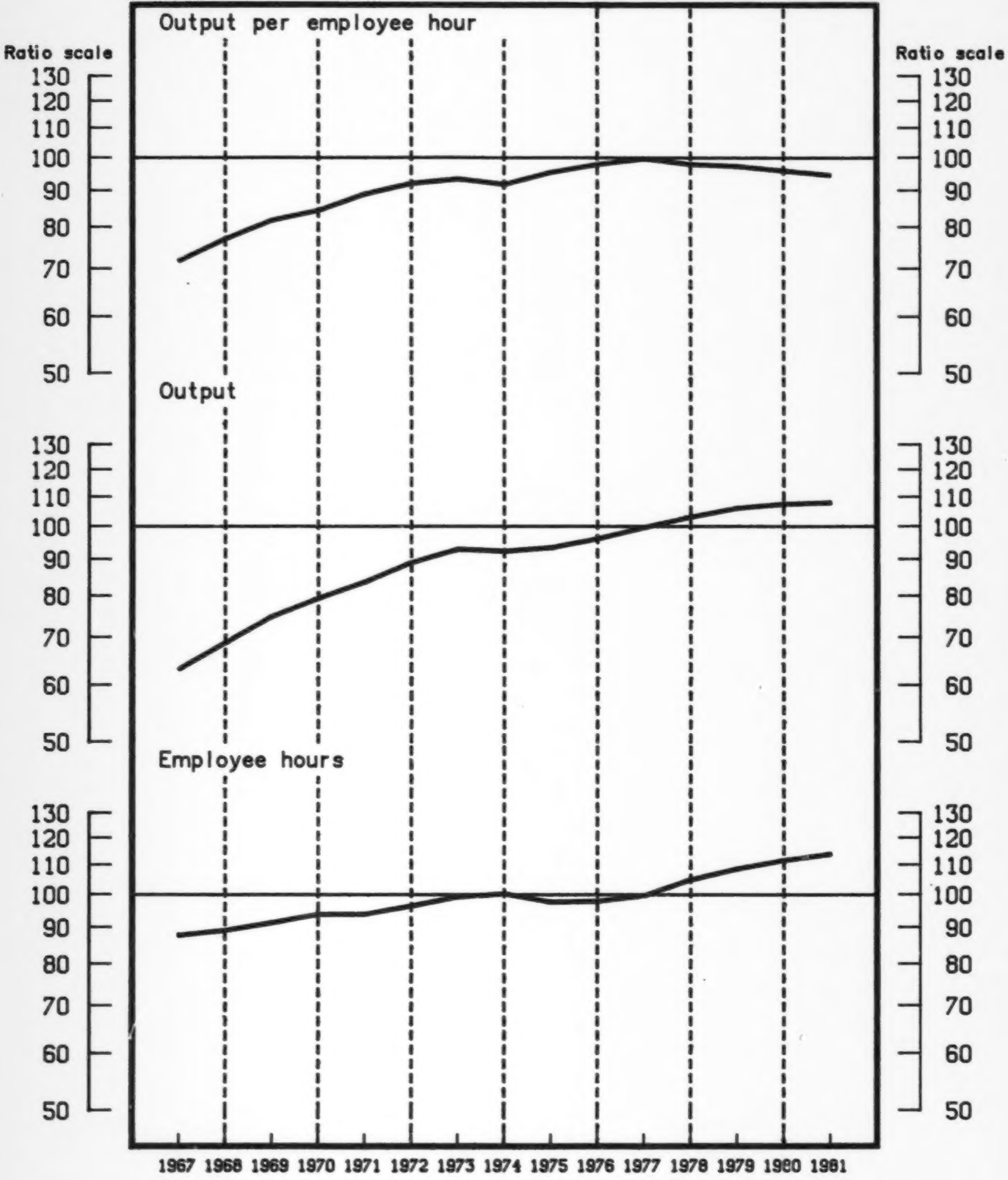
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Federal Communications Commission and the American Telephone and Telegraph Company. Employment and hours based on data from the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 107. Gas and electric utilities (SIC 491, 492, 493): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labc

Table 205. Gas and electric utilities (SIC 491, 492, 493): Indexes of output per employee hour and output per employee, 1954-81

(1977=100)

Year	Output per hour [1]		Output per employee [1]	
	All employees	Production workers [2]	All employees	Production workers [2]
Index:				
1954	30.6	27.5	30.7	27.6
1955	34.0	30.8	34.2	30.9
1956	36.9	33.6	37.0	33.7
1957	38.7	35.4	38.5	35.3
1958	40.6	37.4	40.2	36.9
1959	44.3	41.0	44.1	40.7
1960	47.2	43.9	46.9	43.6
1961	50.0	46.6	49.5	46.2
1962	54.0	50.5	53.8	50.3
1963	57.4	54.1	57.3	53.9
1964	61.6	58.3	61.6	58.1
1965	64.3	60.8	64.5	61.0
1966	69.0	65.5	69.5	65.9
1967	72.0	68.7	72.5	69.1
1968	77.2	73.6	77.6	74.0
1969	82.0	78.6	82.7	79.2
1970	84.6	81.1	85.2	81.7
1971	89.2	85.9	89.4	86.1
1972	92.3	89.2	92.9	89.8
1973	93.6	91.0	94.8	92.2
1974	92.0	91.1	92.5	90.5
1975	95.7	94.3	95.3	93.9
1976	98.2	97.4	98.1	97.2
1977	100.0	100.0	100.0	100.0
1978	98.2	99.3	99.4	100.5
1979	97.6	98.7	98.8	99.9
1980	96.2	97.3	97.5	98.5
1981 [3]	94.8	95.8	95.3	96.3
Average annual percent change:				
1947-81	5.4	5.9	5.4	5.9
1976-81	-.8	-.5	-.6	-.3

---

[1] The output measures underlying the output per employee hour and output per employee indexes relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

[2] Represents nonsupervisory workers.

[3] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Gas Association; Rural Electrification Administration, U.S. Department of Agriculture; Federal Energy Regulatory Commission, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Table 206. Gas and electric utilities (SIC 491, 492, 493): Indexes of output, employee hours, and employees, 1954-81

(1977=100)

Year	Output	Employee hours		Employees	
		All employees	Production workers [1]	All employees	Production workers [1]
Index:					
1954	25.0	81.8	90.8	81.5	90.6
1955	28.1	82.6	91.1	82.2	90.8
1956	30.9	83.8	92.1	83.6	91.7
1957	32.8	84.8	92.7	85.1	93.0
1958	34.2	84.2	91.5	85.1	92.6
1959	37.5	84.6	91.5	85.1	92.1
1960	40.0	84.7	91.2	85.2	91.8
1961	42.0	84.0	90.1	84.8	91.0
1962	45.2	83.7	89.5	84.0	89.8
1963	48.1	83.8	88.9	83.9	89.2
1964	51.9	84.2	89.0	84.3	89.3
1965	55.0	85.6	90.5	85.3	90.2
1966	59.7	86.5	91.1	85.9	90.6
1967	63.4	88.0	92.3	87.5	91.7
1968	69.0	89.4	93.8	88.9	93.3
1969	75.1	91.6	95.5	90.8	94.8
1970	79.6	94.1	98.2	93.4	97.4
1971	83.9	94.1	97.7	93.8	97.4
1972	89.3	96.7	100.1	96.1	99.4
1973	93.2	99.6	102.4	98.3	101.1
1974	92.6	100.6	101.7	100.1	102.3
1975	93.7	97.9	99.4	98.3	99.8
1976	96.4	98.2	99.0	98.3	99.2
1977	100.0	100.0	100.0	100.0	100.0
1978	103.4	105.3	104.1	104.0	102.9
1979	106.4	109.0	107.8	107.7	106.5
1980	107.8	112.0	110.8	110.6	109.4
1981 [2]	108.3	114.3	113.0	113.7	112.5
Average annual percent change:					
1947-81	6.6	1.1	.6	1.1	.7
1976-81	2.4	3.3	2.9	3.1	2.7

---

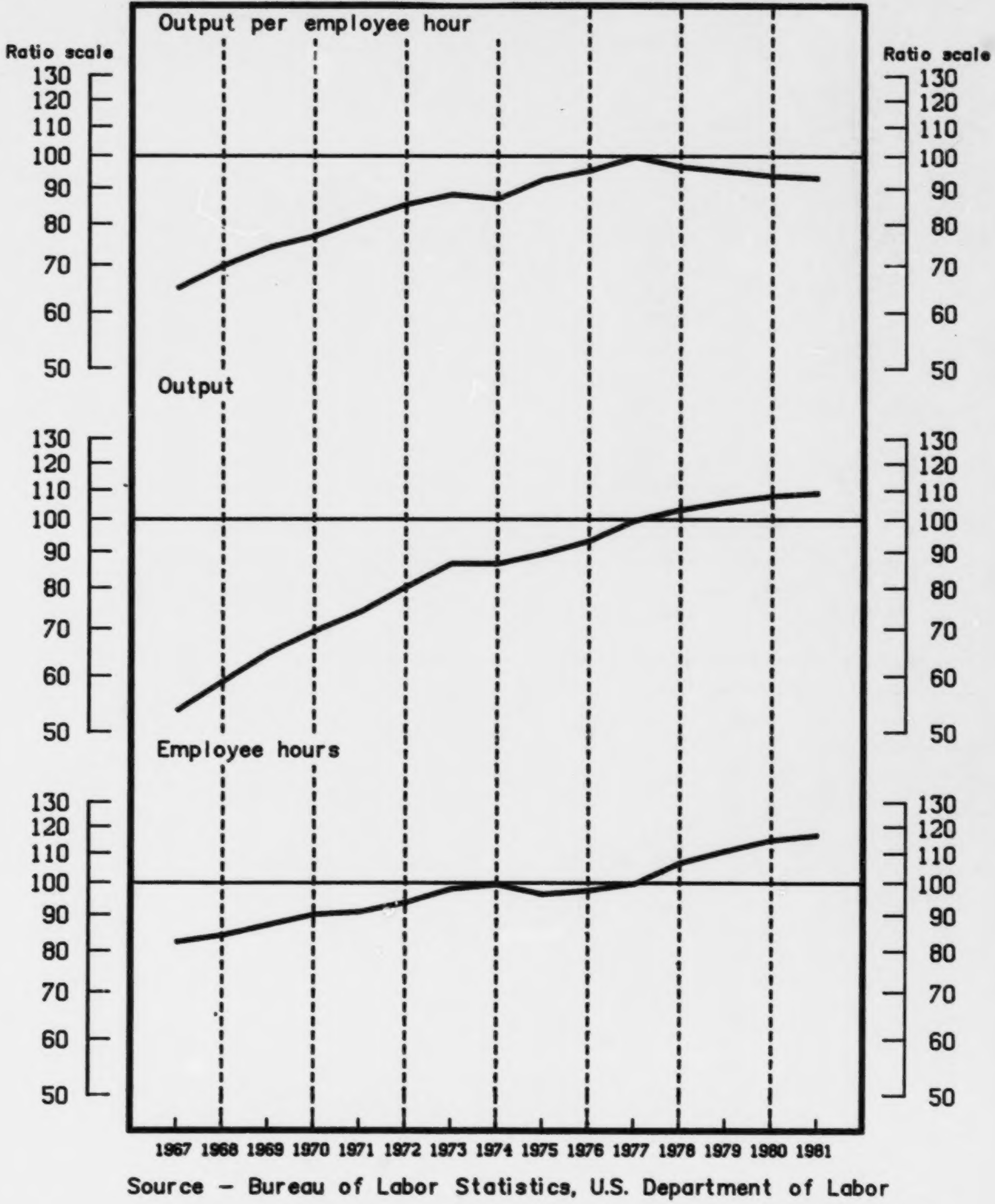
[1] Represents nonsupervisory workers.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Gas Association; Rural Electrification Administration, U.S. Department of Agriculture; Federal Energy Regulatory Commission, U.S. Department of Energy; and the Bureau of Labor Statistics. Employment and hours based on data from the Bureau of Labor Statistics.

Chart 108. Electric utilities (SIC 491, 493 part): Output per hour and related data, 1967-81
(1977 = 100)



Source – Bureau of Labor Statistics, U.S. Department of Labor

Table 207. Electric utilities (SIC 491, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958–81

(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	34.7	34.4	27.4	78.9	79.7
1959	38.7	38.4	30.3	78.3	78.9
1960	41.3	41.0	32.4	78.5	79.0
1961	44.1	43.6	34.2	77.6	78.4
1962	47.6	47.3	36.8	77.3	77.8
1963	51.0	50.8	39.5	77.4	77.7
1964	54.9	54.7	42.8	77.9	78.3
1965	57.9	58.1	46.1	79.6	79.4
1966	62.5	62.8	50.4	80.7	80.2
1967	65.1	65.4	53.8	82.6	82.3
1968	70.1	70.4	59.2	34.5	84.1
1969	74.3	75.0	64.9	87.4	86.5
1970	77.1	77.6	69.7	90.4	89.8
1971	81.4	81.7	74.2	91.2	90.8
1972	85.6	86.3	80.5	94.0	93.3
1973	88.4	90.1	86.9	98.3	96.5
1974	87.1	87.9	86.8	99.7	98.8
1975	92.9	92.1	89.7	96.6	97.4
1976	95.6	95.4	93.5	97.8	98.0
1977	100.0	100.0	100.0	100.0	100.0
1978	96.8	98.6	103.6	107.0	105.1
1979	95.4	97.0	106.2	111.3	109.5
1980	94.0	95.6	108.4	115.3	113.4
1981 [1]	93.3	93.9	109.3	117.1	116.4
Average annual percent change:					
1958-81	4.6	4.7	6.6	1.9	1.8
1976-81	-.9	-.7	3.0	4.0	3.7

[1] Preliminary.

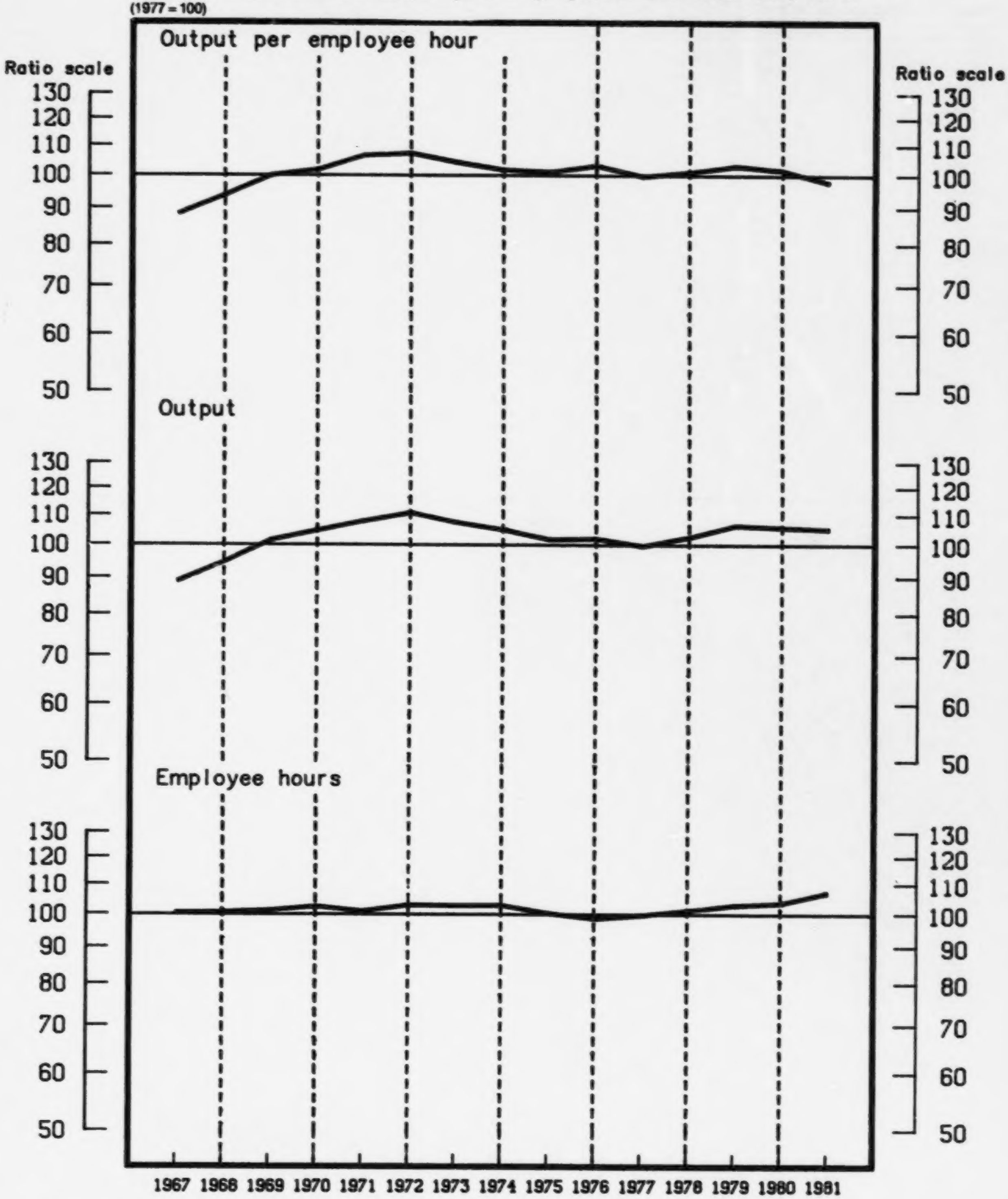
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Rural Electification Administration, U.S. Department of Agriculture and the Federal Energy Regulatory Commision, U.S. Department of Energy. Employment and hours based on data from the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 109. Gas utilities (SIC 492, 493 part): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 208. Gas utilities (SIC 492, 493 part): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958-81

(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	55.7	55.1	54.1	97.2	98.1
1959	58.4	58.3	58.3	99.9	100.0
1960	62.3	62.0	62.2	99.8	100.3
1961	64.6	64.4	64.5	99.9	100.2
1962	69.6	69.6	69.0	99.2	99.2
1963	72.6	72.9	72.2	99.5	99.1
1964	77.7	78.0	77.3	99.5	99.1
1965	79.6	80.3	80.1	100.6	99.7
1966	84.5	85.3	85.2	100.8	99.9
1967	88.6	89.2	89.2	100.7	100.0
1968	94.1	94.6	94.9	100.9	100.3
1969	100.3	100.6	101.8	101.5	101.2
1970	102.1	102.9	105.0	102.8	102.0
1971	106.9	106.9	108.2	101.2	101.2
1972	107.6	108.2	111.1	103.3	102.7
1973	104.5	105.0	107.7	103.1	102.6
1974	102.0	102.1	105.3	103.2	103.1
1975	101.4	101.4	102.0	100.6	100.6
1976	103.5	103.1	102.4	98.9	99.3
1977	100.0	100.0	100.0	100.0	100.0
1978	101.4	101.5	102.9	101.5	101.4
1979	103.4	103.4	106.8	103.3	103.3
1980	102.0	102.0	106.1	104.0	104.0
1981 [1]	98.1	98.4	105.5	107.5	107.2
Average annual percent change:					
1958-81	2.6	2.7	2.9	.2	.2
1976-81	-.5	-.4	1.0	1.6	1.5

[1] Preliminary.

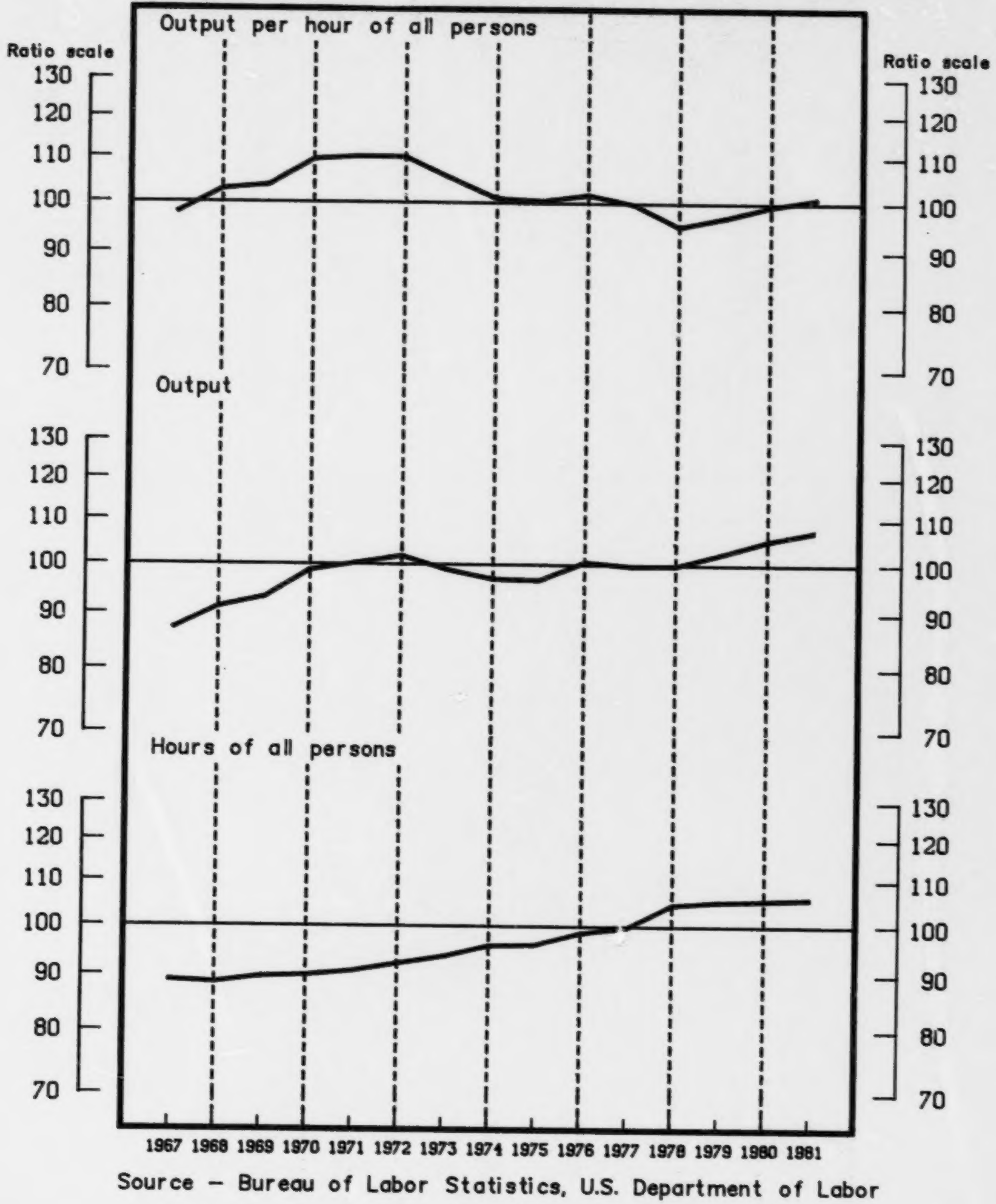
NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the American Gas Association. Employment and hours based on data from the Bureau of Labor Statistics.

BEST DOCUMENT AVAILABLE

Chart 110. Retail food stores (SIC 54): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 209. Retail food stores (SIC 54): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,[1] 1958-81

(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	73.8	88.7	68.5	92.8	77.2
1959	76.9	92.3	71.6	93.1	77.6
1960	79.3	93.8	73.5	92.7	78.4
1961	82.4	96.4	75.3	91.4	78.1
1962	83.5	97.6	76.9	92.1	78.8
1963	87.6	100.5	77.5	88.5	77.1
1964	89.5	102.8	81.3	90.8	79.1
1965	91.9	103.7	84.3	91.7	81.3
1966	94.4	104.0	85.7	90.8	82.4
1967	98.0	106.1	87.4	89.2	82.4
1968	103.0	109.3	91.5	88.8	83.7
1969	103.9	108.5	93.4	89.9	86.1
1970	109.8	113.7	99.0	90.2	87.1
1971	110.4	113.9	100.5	91.0	88.2
1972	110.3	113.5	102.0	92.5	89.9
1973	105.5	108.5	99.1	93.9	91.3
1974	101.1	102.5	97.2	96.1	94.8
1975	100.7	100.4	97.0	96.3	96.6
1976	102.0	103.0	100.8	98.8	97.9
1977	100.0	100.0	100.0	100.0	100.0
1978	95.4	94.9	100.1	104.9	105.5
1979	97.3	95.2	102.7	105.6	107.9
1980[2]	99.7	95.2	105.6	105.9	110.9
1981[2]	101.2	95.9	107.6	106.3	112.2
Average annual percent change:					
1958-81	1.2	.2	1.9	.6	1.7
1976-81	-.1	-1.4	1.5	1.6	2.9

[1] All persons include paid employees, unpaid family workers, and the self-employed.

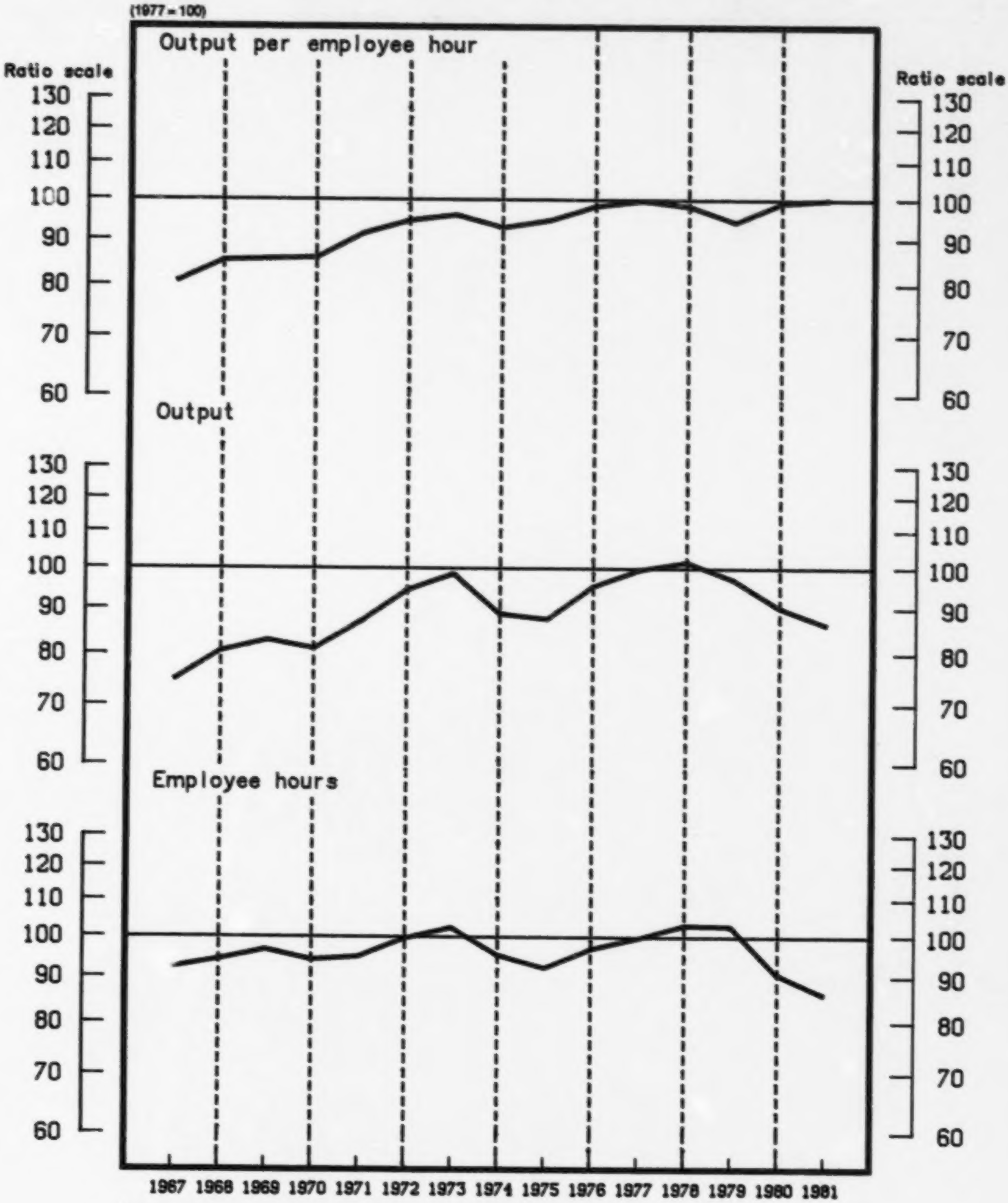
[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Economic Analysis, U.S. Department of Commerce; the Bureau of Labor Statistics; and the Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture. Persons and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 111. Franchised new car dealers (SIC 5511): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

BEST DOCUMENT AVAILABLE

Table 210. Franchised new car dealers (SIC 5511): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1958–81
(1977=100)

Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1958	62.3	70.6	52.4	84.1	74.2
1959	70.6	80.7	61.2	86.7	75.8
1960	71.5	81.4	62.9	88.0	77.3
1961	68.1	76.8	56.1	82.4	73.0
1962	73.0	81.8	61.2	83.8	74.8
1963	74.4	83.5	65.2	87.6	78.1
1964	73.8	83.3	67.4	91.3	80.9
1965	79.2	88.8	75.2	95.0	84.7
1966	79.9	88.0	76.1	95.2	86.5
1967	81.0	87.4	75.0	92.6	85.8
1968	85.5	91.0	80.8	94.5	88.8
1969	85.8	90.2	83.1	96.9	92.1
1970	86.1	89.7	81.3	94.4	90.6
1971	91.7	95.2	87.3	95.2	91.7
1972	94.9	98.0	94.8	99.9	96.7
1973	96.3	98.8	98.9	102.7	100.1
1974	93.2	94.9	89.1	95.6	93.9
1975	95.0	96.5	87.9	92.5	91.1
1976	98.6	99.8	95.8	97.2	96.0
1977	100.0	100.0	100.0	100.0	100.0
1978	98.6	97.4	102.0	103.4	104.7
1979	94.6	93.6	97.5	103.1	104.2
1980	99.5	97.4	90.5	91.0	92.9
1981 [1]	100.9	98.9	87.1	86.3	88.1
Average annual percent change:					
1958-81	2.0	1.2	2.6	.6	1.4
1976-81	.2	-.5	-2.3	-2.5	-1.9

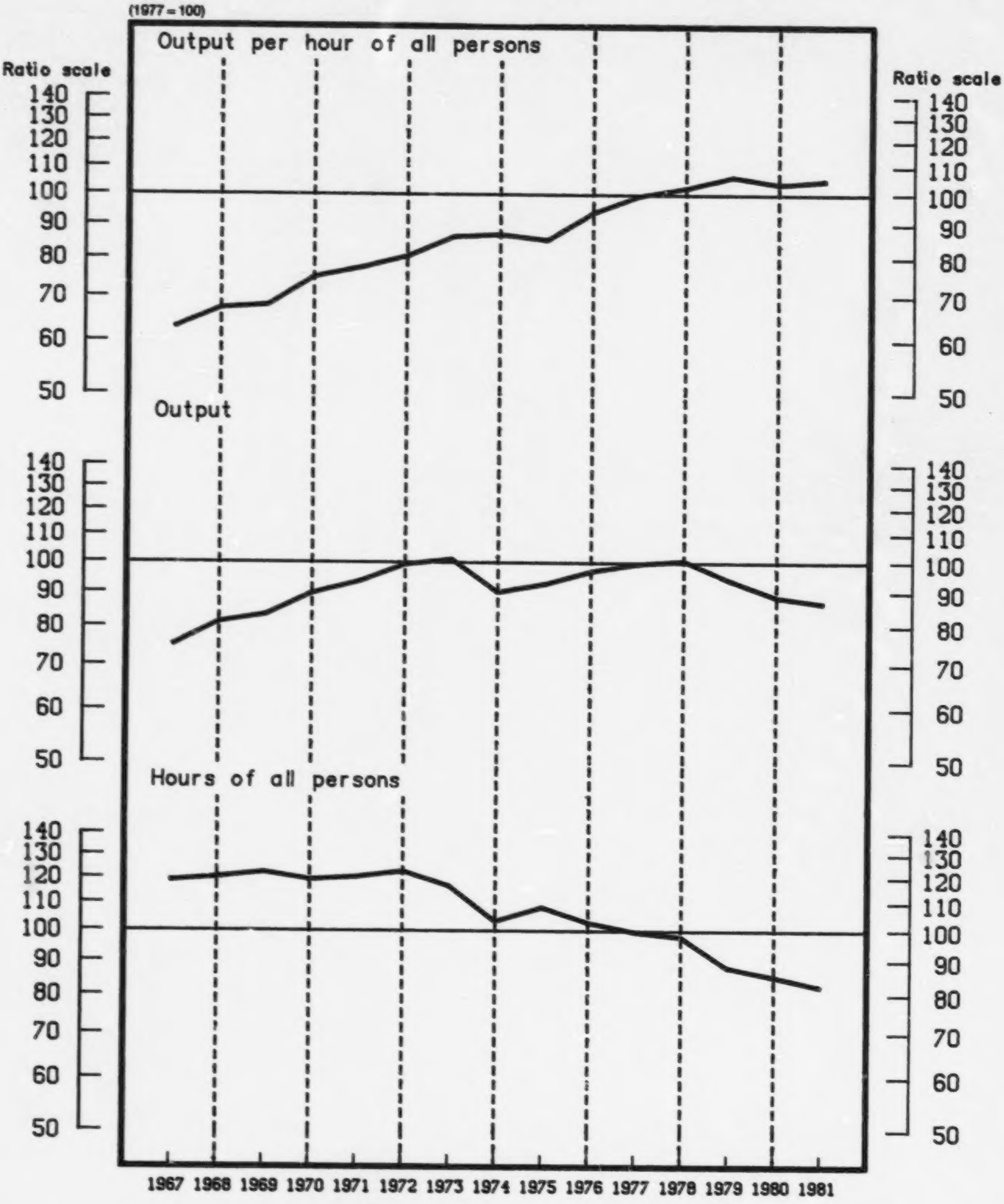
[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census, the Bureau of Labor Statistics, the National Automobile Dealers Association, and Ward's Communications, Inc. (Ward's Automotive Yearbooks). Employment and hours based on data from the Bureau of Labor Statistics.

Chart 112. Gasoline service stations (SIC 5541): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 211. Gasoline service stations (SIC 5541): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,[1] 1958-81

(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	48.9	59.9	53.7	109.8	89.6
1959	50.7	61.9	55.8	110.0	90.2
1960	51.9	63.2	58.0	111.7	91.7
1961	53.5	65.1	60.5	113.1	92.9
1962	53.7	64.9	60.2	112.2	92.8
1963	56.3	67.8	64.4	114.3	95.0
1964	57.2	69.2	66.8	116.8	96.6
1965	59.2	70.8	70.4	119.0	99.5
1966	62.0	73.0	74.2	119.7	101.6
1967	63.2	73.3	75.4	119.3	102.8
1968	67.5	77.1	81.6	120.8	105.9
1969	68.2	76.7	83.7	122.8	109.1
1970	75.3	82.9	90.2	119.8	108.8
1971	77.7	85.8	93.9	120.9	109.4
1972	80.9	88.9	99.7	123.3	112.1
1973	86.6	91.9	101.5	117.2	110.5
1974	87.3	91.2	90.6	103.8	99.3
1975	85.6	90.0	93.2	108.9	103.5
1976	94.3	95.7	97.4	103.3	101.8
1977	100.0	100.0	100.0	100.0	100.0
1978	102.8	102.2	101.1	98.3	98.9
1979	106.8	103.9	94.4	88.4	90.9
1980 [2]	104.1	101.6	89.1	85.6	87.7
1981 [2]	105.4	102.8	87.2	82.7	84.8
Average annual percent change:					
1958-81	3.8	2.6	2.7	-1.0	.1
1976-81	2.1	1.2	-2.7	-4.7	-3.9

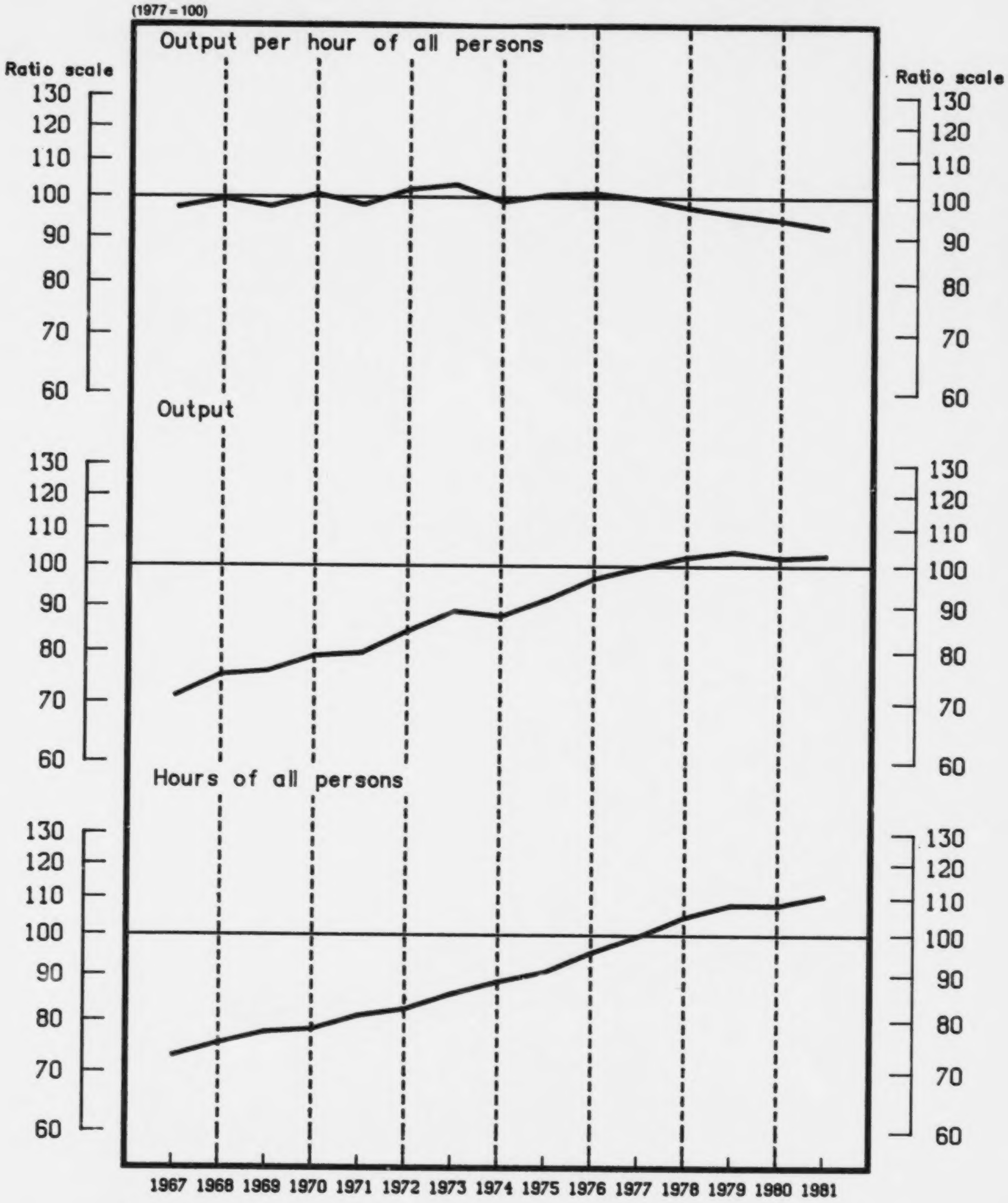
[1] All persons include paid employees, unpaid family workers, and the self-employed.

[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, persons, and hours based on data from the Bureau of Labor Statistics; the Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 113. Eating and drinking places (SIC 58): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 212. Eating and drinking places (SIC 58): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,[1] 1958–81

(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	89.5	120.6	56.3	62.9	46.7
1959	88.4	119.6	57.9	65.5	48.4
1960	88.1	118.3	58.3	66.2	49.3
1961	88.7	118.1	58.2	65.6	49.3
1962	89.3	118.1	60.0	67.2	50.8
1963	91.8	120.1	61.5	67.0	51.2
1964	90.9	119.8	64.2	70.6	53.6
1965	93.7	121.0	68.0	72.6	56.2
1966	94.6	118.4	70.2	74.2	59.3
1967	97.5	118.6	71.4	73.2	60.2
1968	99.7	119.5	75.5	75.7	63.2
1969	97.8	114.1	76.2	77.9	66.8
1970	101.0	114.6	79.3	78.5	69.2
1971	98.3	110.7	79.9	81.3	72.2
1972	102.3	112.2	84.6	82.7	75.4
1973	103.6	111.7	89.1	86.0	79.8
1974	99.1	104.9	88.0	88.8	83.9
1975	101.0	105.5	92.0	91.1	87.2
1976	101.4	104.0	97.1	95.8	93.4
1977	100.0	100.0	100.0	100.0	100.0
1978	97.7	95.9	102.7	105.1	107.1
1979	96.0	92.2	104.2	108.5	113.0
1980 [2]	94.6	89.1	102.5	108.4	115.1
1981 [2]	92.8	87.6	103.1	111.1	117.7
Average annual percent change:					
1958-81	.5	-1.3	3.1	2.6	4.4
1976-81	-1.8	-3.5	1.1	2.9	4.8

---

[1] All persons include paid employees, unpaid family workers, and the self-employed.

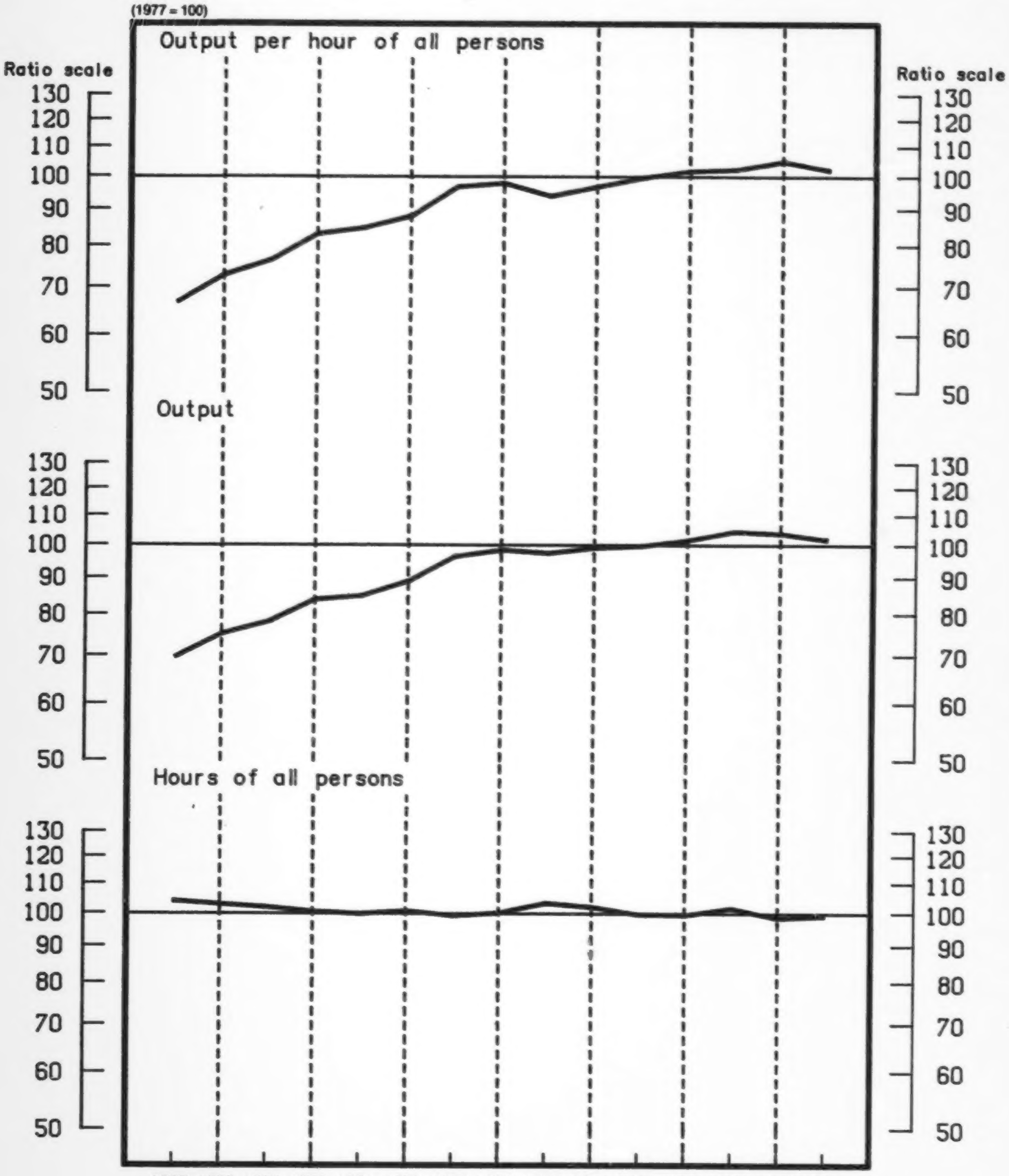
[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Economic Analysis, U.S. Department of Commerce; and the Bureau of Labor Statistics. Persons and hours based on data from the Bureau of Labor Statistics, Bureau of the Census, and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 114. Drug and proprietary stores (SIC 5912): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 213. Drug and proprietary stores (SIC 5912): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,[1] 1958–81

(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	45.6	55.7	44.2	96.9	79.3
1959	47.4	58.1	47.2	99.6	81.3
1960	49.1	59.6	49.8	101.5	83.6
1961	50.8	61.4	51.3	101.0	83.5
1962	51.8	64.0	54.2	104.6	84.7
1963	54.3	66.0	55.9	103.0	84.7
1964	56.4	67.2	58.1	103.1	86.4
1965	59.9	70.2	62.0	103.5	88.3
1966	62.3	72.0	65.9	105.7	91.5
1967	67.0	75.6	70.0	104.4	92.6
1968	73.0	80.4	75.4	103.3	93.8
1969	76.6	82.2	78.4	102.3	95.4
1970	83.4	88.1	84.2	100.9	95.6
1971	85.0	90.0	85.2	100.2	94.7
1972	88.3	92.6	89.3	101.1	96.4
1973	97.1	99.8	96.7	99.6	96.9
1974	98.2	101.2	98.7	100.5	97.5
1975	94.2	100.0	97.7	103.7	97.7
1976	97.1	100.6	99.4	102.4	98.8
1977	100.0	100.0	100.0	100.0	100.0
1978	102.1	102.3	101.9	99.8	99.6
1979	102.7	103.7	104.8	102.0	101.1
1980[2]	105.3	102.2	104.1	98.9	101.9
1981[2]	102.5	98.7	102.1	99.6	103.4
Average annual percent change:					
1958-81	4.2	3.0	4.1	-.1	1.1
1976-81	1.2	(3)	.8	-.4	.9

[1] All persons include paid employees, unpaid family workers, and the self-employed.

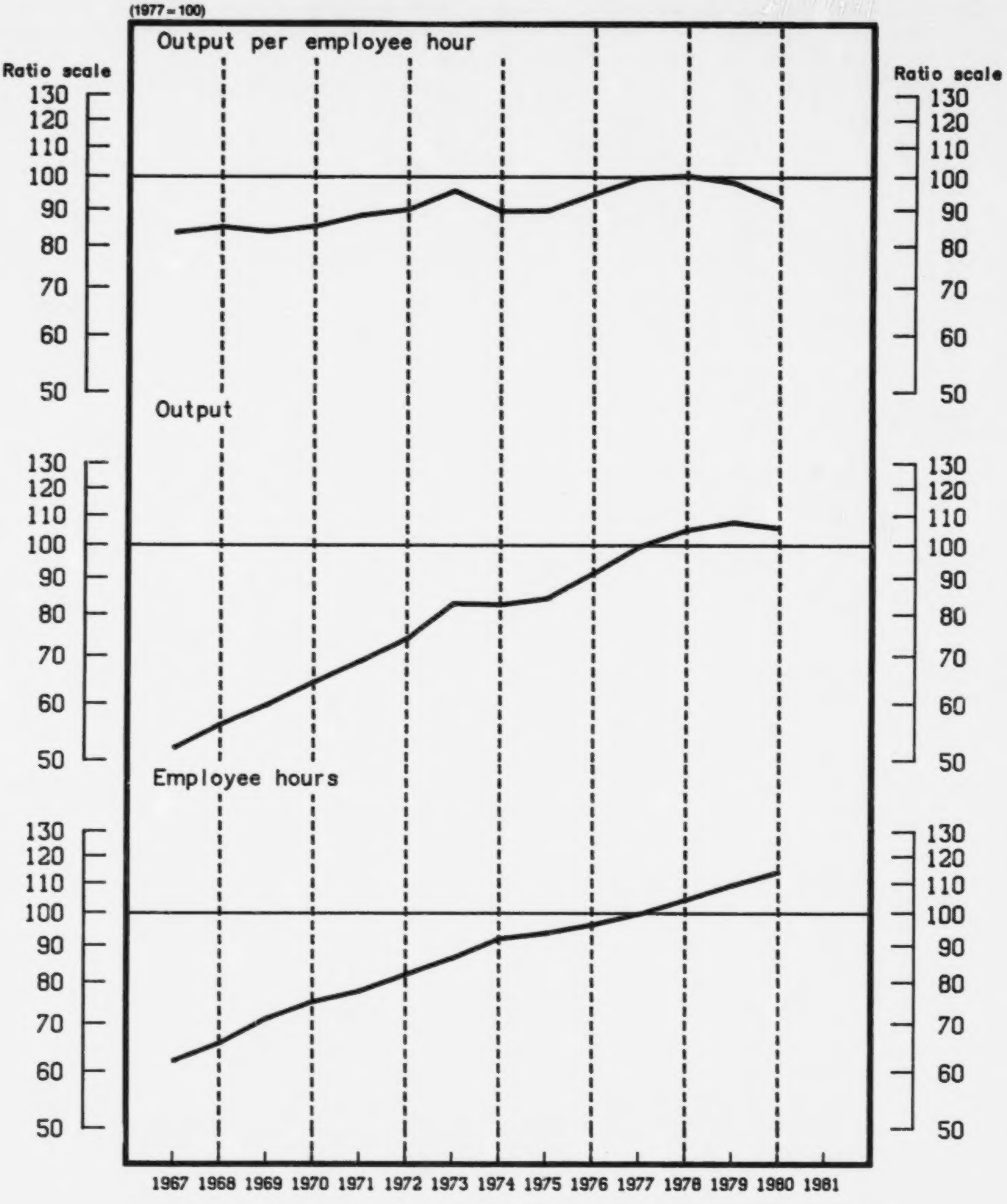
[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Bureau of the Census and the Bureau of Labor Statistics. All persons and hours based on data from the Bureau of the Census; the Bureau of Labor Statistics; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 115. Commercial banking (SIC 602): Output per hour and related data, 1967-80
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 214. Commercial banking (SIC 602): Indexes of output per employee hour, output per employee, output, employee hours, and employees, 1967-80

(1977=100)

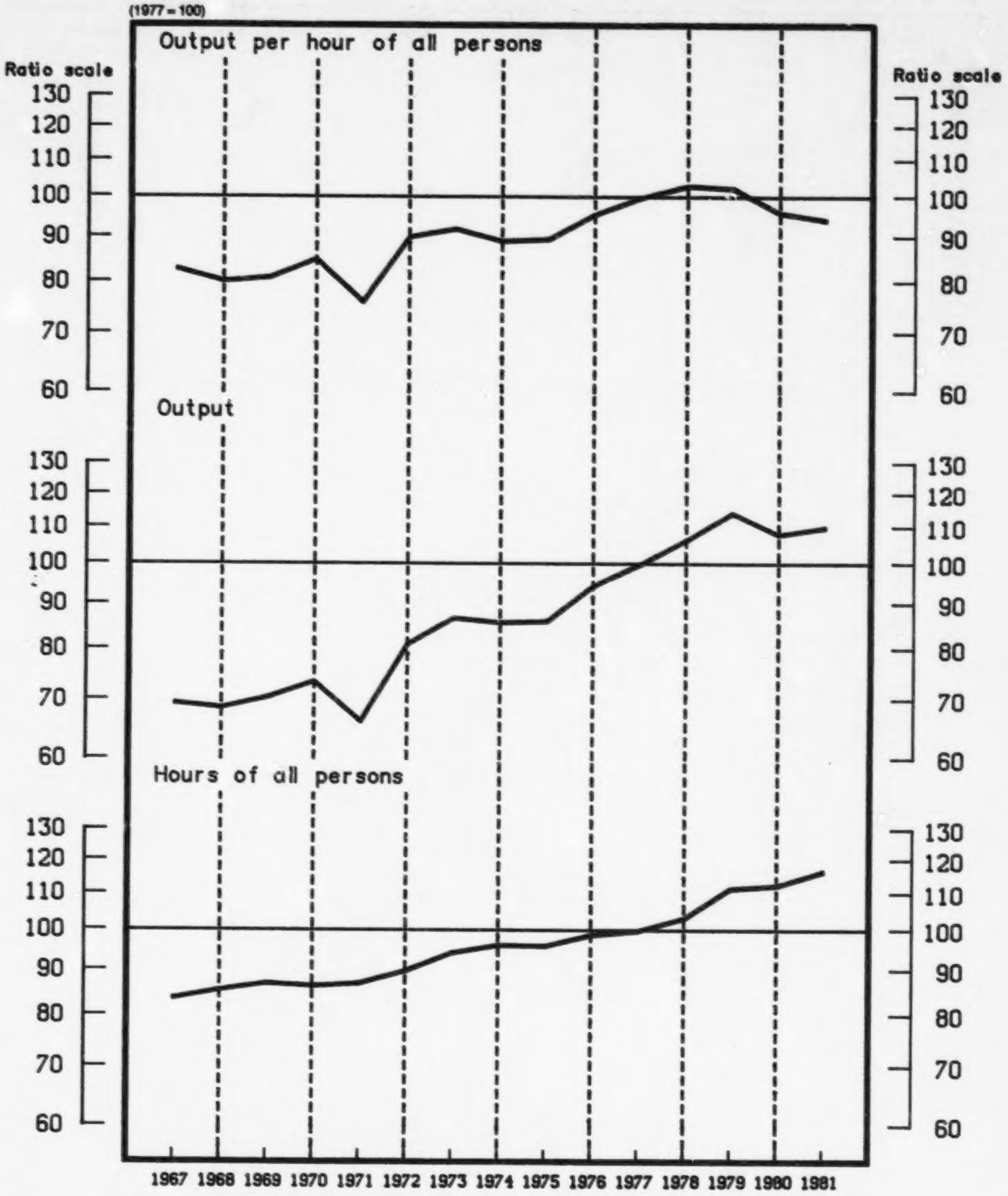
Year	Output per employee hour	Output per employee	Output	Employee hours	Employees
Index:					
1967	83.8	82.9	52.2	62.3	63.0
1968	85.3	84.4	56.3	66.0	66.7
1969	84.0	83.3	60.0	71.4	72.0
1970	85.5	84.2	64.5	75.4	76.6
1971	88.6	87.5	69.1	78.0	79.0
1972	90.3	89.6	74.3	82.3	82.9
1973	95.9	95.1	83.2	86.8	87.5
1974	89.8	89.5	82.9	92.3	92.6
1975	90.0	89.8	84.6	94.0	94.2
1976	95.0	94.8	91.8	96.6	96.8
1977	100.0	100.0	100.0	100.0	100.0
1978	100.7	100.5	105.4	104.7	104.9
1979	98.5	97.8	108.1	109.7	110.5
1980 [1]	92.7	91.7	106.1	114.5	115.7
Average annual percent change:					
1967-80	1.3	1.4	6.0	4.6	4.5
1976-80	-.6	-.9	3.7	4.4	4.7

[1] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output based on data from the Federal Reserve Bank of Atlanta; the Board of Governors, Federal Reserve System; the Federal Deposit Insurance Corporation; the U.S. Department of Housing and Urban Development; the American Bankers Association; the VISA and Interbank Association; and the National Automatic Clearing House Association. Employment and hours based on data from the Bureau of Labor Statistics and the Federal Deposit Insurance Corporation.

Chart 116. Hotels, motels, and tourist courts (SIC 7011): Output per hour and related data, 1967-81
(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 215. Hotels, motels, and tourist courts (SIC 7011): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,[1] 1958–81

(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	63.7	80.1	47.8	75.0	59.7
1959	64.5	81.0	49.5	76.8	61.1
1960	66.0	82.6	51.7	78.3	62.6
1961	63.9	79.1	50.0	78.2	63.2
1962	68.3	83.5	53.6	78.5	64.2
1963	71.5	87.0	56.2	78.6	64.6
1964	71.7	86.3	57.9	80.7	67.1
1965	77.1	91.8	63.4	82.2	69.1
1966	77.3	90.3	64.6	83.6	71.5
1967	82.9	95.3	69.5	83.8	72.9
1968	80.3	90.9	68.7	85.6	75.6
1969	81.1	90.7	70.6	87.1	77.8
1970	85.1	93.3	73.6	86.5	78.9
1971	76.2	81.7	66.4	87.1	81.3
1972	90.2	95.4	81.2	90.0	85.1
1973	92.1	97.9	86.9	94.4	88.8
1974	89.2	93.5	85.9	96.3	91.9
1975	89.7	91.7	86.2	96.1	94.0
1976	95.7	97.6	94.6	98.9	96.9
1977	100.0	100.0	100.0	100.0	100.0
1978	103.1	103.2	106.6	103.4	103.3
1979	102.4	102.7	114.4	111.7	111.4
1980[2]	96.1	95.6	108.2	112.6	113.2
1981[2]	94.3	93.8	110.2	116.8	117.5
Average annual percent change:					
1958-81	2.1	.9	4.0	1.8	3.0
1976-81	-.6	-1.0	3.1	3.7	4.1

---

[1] All persons include paid employees, and the self-employed.

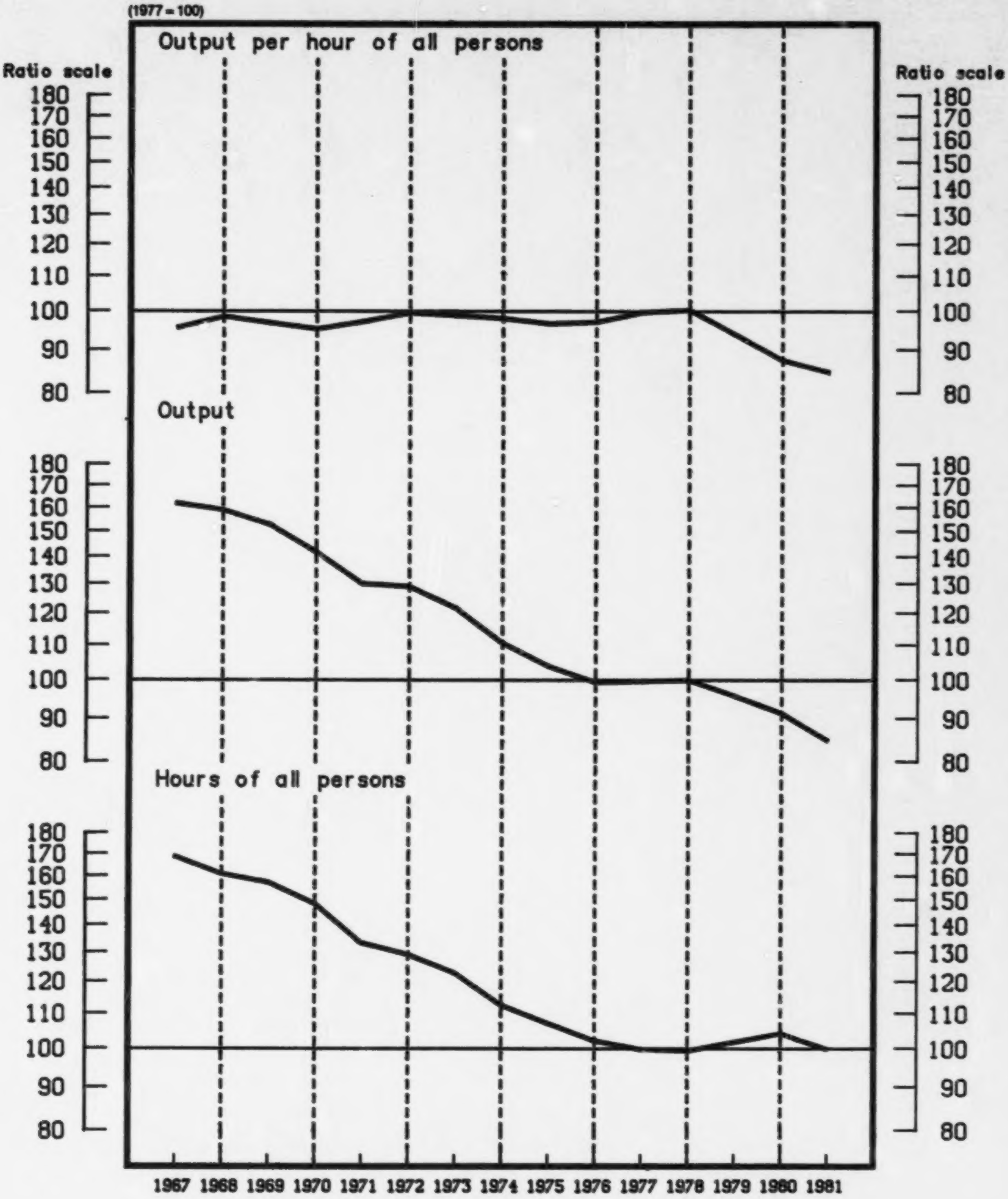
[2] Preliminary.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, persons, and hours based on data from the Bureau of Labor Statistics; Bureau of the Census; and the Internal Revenue Service, U.S. Department of the Treasury.

Chart 117. Laundry and cleaning services (SIC 721): Output per hour and related data, 1967-81

(1977 = 100)



Source — Bureau of Labor Statistics, U.S. Department of Labor

Table 216. Laundry and cleaning services (SIC 721): Indexes of output per hour of all persons, output per person, output, hours of all persons, and all persons,[1] 1958–81
(1977=100)

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
Index:					
1958	80.5	91.3	139.8	173.6	153.1
1959	83.5	95.5	145.6	174.3	152.5
1960	79.3	90.6	138.1	174.1	152.5
1961	83.4	94.8	143.8	172.4	151.7
1962	83.4	94.5	144.3	173.1	152.7
1963	83.1	95.9	150.0	180.5	156.4
1964	89.0	101.2	157.5	177.0	155.7
1965	83.7	95.5	151.9	181.4	159.0
1966	89.0	99.1	160.1	179.9	161.6
1967	95.9	103.2	162.3	169.2	157.2
1968	98.8	103.2	159.4	161.4	154.4
1969	97.1	101.7	153.2	157.7	150.6
1970	95.5	98.4	142.2	148.9	144.5
1971	97.5	98.1	130.4	133.8	132.9
1972	99.8	102.2	129.4	129.6	126.6
1973	99.1	103.1	122.1	123.2	118.4
1974	98.3	100.5	111.0	112.9	110.5
1975	96.9	98.1	104.1	107.4	106.1
1976	97.4	98.0	99.7	102.4	101.7
1977	100.0	100.0	100.0	100.0	100.0
1978	100.6	100.8	100.3	99.7	99.5
1979	94.0	94.0	96.0	102.1	102.1
1980 [2]	87.7	87.7	91.6	104.5	104.4
1981 [2]	84.9	83.8	85.0	100.1	101.4
Average annual percent change:					
1958-81	.7	([3])	-2.4	-3.1	-2.4
1976-81	-3.2	-3.5	-3.1	.1	.4

[1] All persons include paid employees, unpaid family workers, and the self-employed.

[2] Preliminary.

[3] Less than .05 percent.

NOTE: Because of periodic revisions in source data, the measures in this table may differ from those previously published.

SOURCE: Output, persons, and hours based on data from the Bureau of Labor Statistics; Bureau of the Census and the Bureau of Economic Analysis, U.S. Department of Commerce; and the Internal Revenue Service, U.S. Department of the Treasury.

Other BLS Publications on Productivity and Technology

How to order

The *Monthly Labor Review* is available by subscription or single copy from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 ($26 a year domestic; $32.50 foreign; single copy $5.00). Make checks payable to Superintendent of Documents.

Reprints and news releases are available free of charge, as long as the supply lasts, from the Bureau of Labor Statistics, Washington, D.C. 20212, or from the Bureau's regional offices. Working Papers are available from the Bureau's Office of Productivity and Technology.

Bulletins are for sale by the Superintendent of Documents or at any of the regional offices of the Bureau of Labor Statistics (see inside back cover). Prices are subject to change without notice. Out-of-print publications may be available at large public and school libraries and at Government depository libraries. Publications marked with an asterisk (*) also are available on microfiche and in paper copy from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Va. 22161.

Productivity trends in individual industries and the Federal Government

"Productivity Measures: Industries and the Federal Government," reprint of chapter 14 of the *BLS Handbook of Methods*, Bulletin 2134 (1982).

"Productivity Growth Average in Farm Machinery Manufacturing," by Arthur S. Herman and Jack W. Ferris, *Monthly Labor Review*, October 1982, pp. 6-10.

"Millwork Industry Shows Slow Growth in Productivity," by Jack Veigle and Horst Brand, *Monthly Labor Review*, September 1982, pp. 21-26.

"Measuring Productivity in Service Industries," by Jerome A. Mark, *Monthly Labor Review*, June 1982, pp. 3-8.

"Nonwool Yarn Mills Experience Slow Gains in Productivity," by James D. York, *Monthly Labor Review*, March 1982, pp. 30-33.

"Transformer Industry Productivity Slows," by Phyllis Flohr Otto, *Monthly Labor Review*, November 1981, pp. 35-39.

"Cyclical Behavior of Productivity in the Machine Tool Industry," by John Duke and Horst Brand, *Monthly Labor Review*, November 1981, pp. 27-34.

"Productivity Trends for Intercity Bus Carriers, " by Richard B. Carnes, *Monthly Labor Review*, May 1981, pp.23-27.

"Measuring Productivity in Government," by Jerome A. Mark, *Public Policy Review*, March 1981, pp. 21-44.

"Developments in Productivity," by Jerome A. Mark, paper presented before the World Trade Conference, Chicago, March 26, 1981.

"Productivity Trends in the Ball and Roller Bearing Industry," by James D. York and Elmer S. Persigehl, *Monthly Labor Review*, January 1981, pp. 40-43.

"Productivity Gains in the Drugstore Industry, 1958-79," by Brian L. Friedman, *Monthly Labor Review*, November 1980, pp. 18-22.

"Construction Machinery Industry Posts Slow Rise in Productivity," by John Duke, *Monthly Labor Review*, June 1980, pp. 33-36.

"Productivity Growth Below Average in Fabricated Structural Metals," by Phyllis Flohr Otto, *Monthly Labor Review*, June 1980, pp. 27-31.

"The Paper and Plastic Bag Industry: Two Distinct Productivity Phases," by Horst Brand and Clyde Huffstutler, *Monthly Labor Review*, May 1980, pp. 26-30.

"Federal Sector Productivity Measurement," by Charles W. Ardolini, *in Selected Papers from North American Conference on Labor Statistics*, May 1980, pp. 49-60.

"Folding Paperboard Box Industry Shows Slow Rise in Productivity," by James D. York, *Monthly Labor Review*, March 1980, pp. 25-28.

"The Productivity Trend in the Soaps and Detergents Industry," by Patricia S. Wilder, *Monthly Labor Review*, February 1980, pp. 26-30.

"Substantial Productivity Gains in the Fluid Milk Industry," by Elmer S. Persigehl and James D. York, *Monthly Labor Review*, July 1979, pp. 22-27.

"Productivity Growth Below Average in the Household Furniture Industry," by J. Edwin Henneberger, *Monthly Labor Review*, November 1978, pp. 23-29.

"The Pattern of Productivity in the Lighting Fixtures

Industry," by Phyllis Flohr Otto, *Monthly Labor Review*, September 1978, pp. 31-37.

"The Veneer and Plywood Industry: Above-Average Productivity Gains," by Mary Robinson Farris, *Monthly Labor Review*, September 1978, pp. 26-30.

"Productivity and Technology in the Electric Lamp Industry," by Richard B. Carnes, *Monthly Labor Review*, August 1978, pp. 15-19.

"Productivity and Technology in the Electric Motor Industry," by James D. York and Horst Brand, *Monthly Labor Review*, August 1978, pp. 20-25.

"Laundry and Cleaning Services Pressed to Post Productivity Gains," by Richard B. Carnes, *Monthly Labor Review*, February 1978, pp. 38-42.

"Productivity and New Technology in Eating and Drinking Places," by Richard B. Carnes and Horst Brand, *Monthly Labor Review*, September 1977, pp. 9-15.

"Productivity in Grain Mill Products: Output Up, Employment Stable," by James A. Urisko, *Monthly Labor Review*, April 1977, pp. 38-43.

"Productivity in Sawmills Increases as Labor Input Declines Substantially," by John Duke and Clyde Huffstutler, *Monthly Labor Review*, April 1977, pp. 33-37.

"New-Car Dealers Experience Long-Term Gains in Productivity," by John Duke, *Monthly Labor Review*, March 1977, pp. 29-33.

"Output Per Unit of Labor Input in the Retail Food Store Industry," by John L. Carey and Phyllis Flohr Otto, *Monthly Labor Review*, January 1977, p. 42-47.

Productivity and other economic trends

"Productivity Measures: Business Economy and Major Sectors," reprint of chapter 13 of the *BLS Handbook of Methods*, Bulletin 2134 (1982).

"The Measurement of Capital Stock, Capital Wealth, and Capital Services," BLS Working Paper 128 (March 1982). Processed.

Productivity and Costs: Business Sector (quarterly news release).

Productivity and Costs: Nonfinancial Corporations (quarterly news release).

Productivity and the Economy: A Chartbook, BLS Bulletin 2084 (October 1981). Price: $5.50.

"Dynamic Models of Energy Substitution in U.S. Manufacturing," BLS Working Paper 102 (May 1981). Processed.

"Energy Prices, Technical Change, and Productivity Growth," BLS Working Paper 118 (April 1981). Processed.

"Long Nonfarm Productivity Slide Ends During the Third Quarter," by Lawrence J. Fulco, *Monthly Labor Review*, March 1981, pp. 66-67.

Productivity: A Selected, Annotated Bibliography, 1976-78, BLS Bulletin 2051 (1980). Price $6.50.

"Sixth Consecutive Productivity Drop Recorded for the Second Quarter," by Lawrence J. Fulco, *Monthly Labor Review*, December 1980, pp. 52-56.

"The Role of Capital Formation in the Recent Productivity Slowdown," BLS Working Paper 87 (January 1979). Processed.

"CES Efficiency Parameters," BLS Working Paper 81 (September 1978). Processed.

"Productivity and Costs During Recession and Recovery," by J. R. Norsworthy and L. J. Fulco, *Monthly Labor Review*, August 1978, pp. 31-35.

A Quarterly Econometric Model of the Long-Term Structure of Production, Factor Demand, and Factor Productivity in 10 U.S. Manufacturing Industries, BLS Staff Paper 9 (1978).* "The Productivity Slowdown and the Outlook to 1985," by R. E. Kutscher, J. A. Mark, and J. R. Norsworthy, *Monthly Labor Review*, May 1977, pp. 3-8.

Productivity: A Selected, Annotated Bibliography, 1971-75, BLS Bulletin 1933 (1977). Out of print.

"New Sector Definitions for Productivity Series," by J. R. Norsworthy and L. J. Fulco, *Monthly Labor Review*, October 1976, pp. 40-42.

The Meaning and Measurement of Productivity, BLS Bulletin 1714 (1971). Out of print.

Technology studies

"Technological Change," reprint of chapter 15 of the *BLS Handbook of Methods*, Bulletin 2134 (1982).

The Impact of Technology on Labor in Five Industries, BLS Bulletin 2137 (forthcoming).

Technology and Labor in Four Industries, BLS Bulletin 2104 (1982). Price: $3.25.

Technology, Productivity, and Labor in the Bituminous Coal Industry, 1950-79, BLS Bulletin 2072 (1981). Price: $5.00.

Technology and Labor in Five Industries, BLS Bulletin 2033 (1979).* Price: $4.75.

Technological Change and Its Labor Impact in Five Energy Industries, BLS Bulletin 2005 (1979). Price: $5.00.

"Technology in Telecommunications: Its Effect on Labor and Skills," by Michael D. Dymmel, *Monthly Labor Review*, January 1979, pp. 13-19.

"Technology and Labor in Automobile Production," by Robert V. Critchlow, *Monthly Labor Review*, October 1977, pp. 32-36.

Technological Change and Its Labor Impact in Five Industries, BLS Bulletin 1961 (1977). Price: $4.75.

Construction labor requirements

Labor and Material Requirements for Federal Building Construction, BLS Bulletin 2146 (forthcoming).

Labor and Material Requirements for Commercial Office Building Construction, BLS Bulletin 2102 (1982). Price: $3.25.

"Employment Created by Construction Expenditures," by Robert Ball, *Monthly Labor Review*, December 1981, pp. 38-44.

"Labor and Material Requirements for Federal Building Construction," by John G. Olsen, *Monthly Labor Review*, December 1981, pp. 47-51.

"Labor and Material Requirements for Commercial Office Building Projects," by Barbara J. Bingham, *Monthly Labor Review*, May 1981, pp. 41-48.

Labor and Material Requirements for Elementary and Secondary School Construction, BLS/LAB Constr - 72/81, (1981).*

"Labor Requirements Decline for Public Housing Construction," by Robert J. Prier, *Monthly Labor Review*, December 1980, pp. 40-44.

"Labor and Material Requirements for Federally Aided Highways," by Robert J. Prier, *Monthly Labor Review*, December 1979, pp. 29-34.

"Labor Requirements for College-Housing Construction," by Barbara J. Bingham, *Monthly Labor Review*, May 1979, pp. 28-34.

"Labor and Material Requirements for New School Construction," by John G. Olsen, *Monthly Labor Review*, April 1979, pp. 38-41.

Labor and Material Requirements for Sewer Works Construction, BLS Bulletin 2003 (1979). Price: $4.75.

"U. S. Civil Works Construction Shows Decrease in Required Labor," by Barbara J. Bingham, *Monthly Labor Review*, October 1978, pp. 24-30.

"Construction Labor Requirements," reprint of chapter 33 of the *BLS Handbook of Methods*, Bulletin 1910 (1976), pp.238-40.

International comparisons

"Foreign Labor Statistics and Trade Monitoring," reprint of chapter 16 of the *BLS Handbook of Methods*, Bulletin 2134 (1982).

International Comparisons of Manufacturing Productivity and Labor Cost Trends: Preliminary Measures, (annual news release; usually in May).

"International Comparisons of Trends in Productivity and Labor Costs," by Patricia Capdevielle and Donato Alvarez, *Monthly Labor Review*, December 1981, pp. 14-20.

"Unemployment, Labor Force Trends, and Layoff Practices in 10 Countries," by Joyanna Moy and Constance Sorrentino, *Monthly Labor Review*, December 1981, pp. 3-13

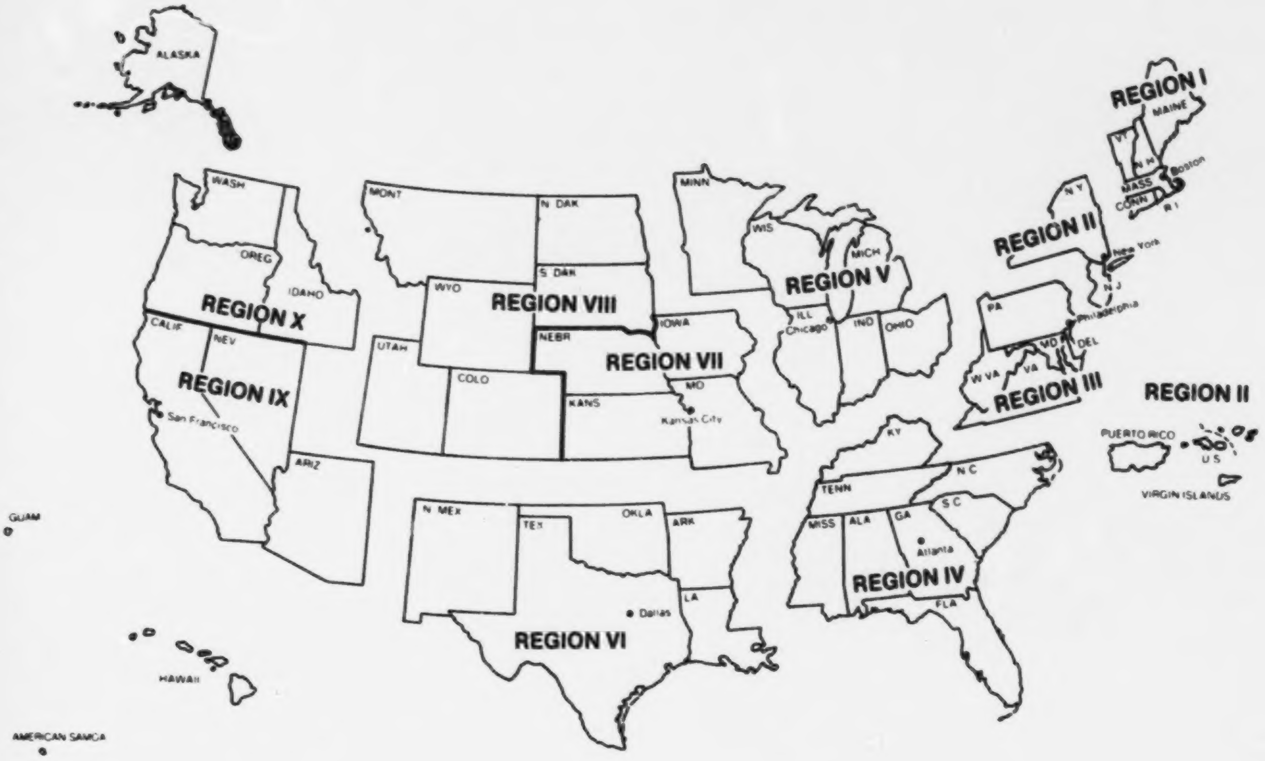
Youth Unemployment: An International Perspective, BLS Bulletin 2098 (September 1981). Price: $3.50. Also, "Youth Unemployment: An International Perspective," by Constance Sorrentino, *Monthly Labor Review*, July 1981, pp. 3-15.

International Comparisons of Unemployment, BLS Bulletin 1979 (1978). Price : $6.50.

Comparative Growth in Manufacturing Productivity and Labor Costs in Selected Industrialized Countries, BLS Bulletin 1958 (1977). Out of print.

☆ U.S. GOVERNMENT PRINTING OFFICE : 1982 O—381-608 (3880)

Bureau of Labor Statistics
Regional Offices


ALASKA
REGION I
MAINE
VT
N H
MASS
Boston
CONN
R I
N Y
REGION II
New York
N J
PA
Philadelphia
MD
DEL
W VA
VA
REGION III
REGION II
PUERTO RICO
U S
VIRGIN ISLANDS
WASH
OREG
IDAHO
REGION X
CALIF
NEV
REGION IX
San Francisco
ARIZ
MONT
N DAK
S DAK
WYO
REGION VIII
UTAH
COLO
NEBR
IOWA
REGION VII
KANS
MO
Kansas City
MINN
WIS
MICH
REGION V
ILL
Chicago
IND
OHIO
KY
TENN
N C
S C
MISS
ALA
GA
Atlanta
REGION IV
FLA
N MEX
TEX
OKLA
ARK
LA
Dallas
REGION VI
GUAM
HAWAII
AMERICAN SAMOA

Region I
1603 JFK Federal Building
Government Center
Boston, Mass. 02203
Phone: (617) 223-6761

Region II
Suite 3400
1515 Broadway
New York, N.Y. 10036
Phone: (212) 944-3121

Region III
3535 Market Street
P.O. Box 13309
Philadelphia, Pa. 19101
Phone: (215) 596-1154

Region IV
1371 Peachtree Street, N.E.
Atlanta, Ga. 30367
Phone: (404) 881-4418

Region V
9th Floor
Federal Office Building
230 S. Dearborn Street
Chicago, Ill. 60604
Phone: (312) 353-1880

Region VI
Second Floor
555 Griffin Square Building
Dallas, Tex. 75202
Phone: (214) 767-6971

Regions VII and VIII
911 Walnut Street
Kansas City, Mo. 64106
Phone: (816) 374-2481

Regions IX and X
450 Golden Gate Avenue
Box 36017
San Francisco, Calif. 94102
Phone: (415) 556-4678